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# WESTERN KENTUCKY UNIVERSITY STUDENT HONORS BULLETIN

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## TABLE OF CONTENTS

|  |     |
|--|-----|
| Bruce Greene   |     |
| THE TRADITIONAL FIDDLE MUSIC OF SOUTH-<br>CENTRAL KENTUCKY.....  | 1   |
| Marlin Moody   |     |
| SOME EFFECTS OF THE HERBICIDE GLYPHOSATE<br>ON JOHNSONGRASS RHIZOMES.....  | 10  |
| Larry Jones  |     |
| DISCRIMINATION AGAINST THE OBESE.....  | 15  |
| Robert W. Ross   |     |
| MANAGEMENT CONSIDERATIONS IN EMPLOYEE PROMOTION.....   | 24  |
| Nancie Calloway  |     |
| RAY BRADBURY AND THE ANGELS or<br>Rudolf Bultmann's Failure To Recognize The<br>Three-Storied Universe In Modern Eschatology<br>If It Should Fall On Him At The Kennedy Space<br>Center..... | 34  |
| Gene Boaz  |     |
| THE HYPERKINETIC CHILD: DIAGNOSIS AND TREATMENT.....   | 43  |
| Royce Hawkins  |     |
| ANCIENT GREEK MYTHOLOGY: ITS ORIGINS AND EFFECTS.....  | 51  |
| Carol Moisan   |     |
| ACUPUNCTURE: THE ORIENT'S MOST FASCINATING<br>MYSTERY.....   | 64  |
| Bob Hesch  |     |
| REFLECTIONS: AFTER HAVING PASSED THROUGH ENGLISH 390 -<br>MASTERPIECES IN AMERICAN LITERATURE.....   | 74  |
| Loretta Martin   |     |
| PROGRESS REPORT ON THE BATTLE AGAINST CANCER.....  | 78  |
| Ron Cameron  |     |
| THE EXISTENTIAL ANALYSIS OF DEATH IN HEIDEGGER'S<br><u>BEING AND TIME</u> .....  | 90  |
| David Conway   |     |
| AN ANALYSIS OF AUTOMATED DATA PROCESSING SYSTEMS.....  | 100 |
| Tony K. Stewart  |     |
| RELIGIOUS MOTIFS IN <u>CAT'S CRADLE</u> AND <u>PLAYER PIANO</u> .....  | 107 |



|  |     |
|--|-----|
| Douglas L. Mullikin                              |     |
| THE PHYSIOLOGICAL EFFECTS OF NOISE.....          | 118 |
| Edward L. Ryan III                               |     |
| A NOTE ON AN OFT PONDERED PASSAGE OF WALDEN..... | 124 |
| Ron Potter                                       |     |
| THE GOLDEN MEAN.....                             | 126 |

THE TRADITIONAL FIDDLE MUSIC OF  
SOUTH-CENTRAL KENTUCKY

by  
Bruce Greene

As a folk art form, traditional country fiddle music has been greatly neglected by scholars in general, and it remains today a largely ignored and little understood segment of early American culture. Because of this, the true importance and relevance of the music to the social history of this country has not been fully measured.

Traditional fiddle music is largely a rural phenomenon. It is intimately tied to the traditional, non-mechanized rural society in which it flourished until the rapid growth of industry in the last one-hundred years. The mainstream of American culture until about World War I was rural, and fiddle music and the country dances connected with that music were probably the most universally accepted forms of entertainment. To understand early American culture, the importance of this rural society must be recognized, and to understand rural society, the instrumental music that was so important to it must also be recognized.

Traditional fiddle music was an integral part of almost every secular social activity in early rural America. It filled a highly functional role in supplying musical entertainment for local dances, parties, shows, holiday celebrations, picnics, and any other occasions in an age without readily available formal sources of entertainment such as radio, television, movies, and concerts. In this sense, despite the inherent beauty and vigor of the music, it was largely relevant to, and therefore highly dependent on, the role it played as a social necessity. The demise of traditional fiddle music in American society can be traced almost exactly to the rise of technology in the early twentieth century, after which readily available recorded and broadcast music, through sheer expediency, filled the place that traditional music once held in society out of necessity.

As a result, traditional musicians were forced to change their style and repertoire, which had been cultivated and passed down from generation to generation for centuries to accomodate the changes in public taste brought about by the introduction of new musical styles and a completely different stock of songs and tunes that were unknown because of the isolation of nineteenth century communities. More and more, the traditional musician adopted the popular commercial music he heard on the radio and on records, until today, authentic traditional fiddle music, as an art distinctly different in style and function from modern fiddle music, is very difficult to find in its purest form and even more difficult to analyze academically. Because so little has been written about the early history of this music, and because virtually no attempt has previously



been made to document the fiddle music of south-central Kentucky, the sources for this study are mostly local traditional musicians who were born prior to 1920 and who experienced the music as it thrived in a non-industrial society.

#### THE DEVELOPMENT OF TRADITIONAL FIDDLE MUSIC IN SOUTH-CENTRAL KENTUCKY

From the beginning of America's colonization, it can fairly safely be assumed that traditional fiddling underwent a good deal of change. Immigration caused many of the established European social patterns to be displaced, and in the case of colonization to a frontier, the arts were likely to be neglected while settling was taking place and a permanent society was being re-established. By the time of the Revolutionary War, the Atlantic colonies had reached a degree of social stabilization, and traditional fiddling became firmly established with faithfulness to the Old World styles evident in the more highly cosmopolitan parts of New England, and with newer, more Americanized styles developing in the more remote agricultural colonies of the south.

The traditional fiddling of the South from then on began to develop along two main lines. In the remote settlements of south-central Kentucky, the style remained very basic. Tunes were played almost as a bare skeleton, or framework that was completely unadorned. Probably hundreds of simple "jig" tunes, as the fiddlers called them, sprang up. These tunes were melodically and stylistically very different from the fairly complicated, often modal, British style tunes that remained in the established colonies of the East. In the towns and earlier established settlements, however, the opposite happened. Here, the fiddling began to develop into an art again, drawing on new musicians who settled in the towns from the East. Around established towns such as Tompkinsville (1819), Scottsville (1816), Bowling Green (1775) (W. H. Perrin, History of Kentucky. Louisville: E. A. Battey Publishing Company, 1886, p. 720.) and Glasgow, some of the finest old-time fiddlers in Kentucky developed.

On the whole, the fiddle music became more rhythmically oriented and less melodically complex than the European music from which it grew. This was accomplished by tuning the fiddle to an open chord and playing two strings simultaneously almost at all times. John Rountree, a 78 year old fiddler from Bowling Green recalls:

"Well, they'd make two different changes in the tuning of the violin back then. They played with a low bass and a high bass. And they'd have to change them."

A fiddler from Green County, Wallace Thompson, remembers seeing and hearing older fiddlers in his youth:

"I know an old man who plays the fiddle, and he plays some of the tunes kind of like the way they



did in this part of the country. And all those people played by ear, strictly. Most of their fiddles didn't have a chinrest on it. They wouldn't use it. Actually, they would put their fiddle down about their chest and hold the bow about six inches from the frog to play. And that was just strictly for the fiddle tunes. Old-time tunes in first position with a lot of open strings. If you played waltzes, slow tunes, you couldn't do that."

Before about 1850, the fiddle was virtually the only suitable dance instrument available in rural Kentucky. The five-string banjo was not introduced until after the Civil War, and the guitar and mandolin did not appear until after 1900, at the earliest. In these early dances then, the fiddle was forced to supply both the melody and the rhythmical accompaniment that normally would have been supplied by a rhythm instrument like a banjo or guitar.

The land in between towns and settlements was still wild even after the Civil War, and social events like dances were probably less frequent because of the isolation and distances between neighbors, as John Rountree points out:

"Back then they'd talk about animals - strange animals that I didn't know much about in my time - it was on before then. And I'd have my dad tell us his dad, one time, he said he had thirteen deer hung up in that smokehouse - like killing hogs. I don't believe they had as many (dances) back then as they did in my first experience with such as that. But still, they was more widely scattered back in that time than they was in my time. You know, sometimes it'd be miles between neighbors. They had oxens back then instead of horses and mules, and that was way slower."

The importance of these early dances and the music to a community cannot be over-estimated. Despite the isolation of individual families, they were willing to travel great distances on foot to attend a party or dance and to hear fiddle music. Gusty Wallace, 82, from Metcalfe County, relates:

"Mostly, people wanted someplace to go, and you know back in those days, there wasn't no place to go to much. 'Course I guess they had revivals, but y'know they didn't last too long. And they put on these big square dances. They'd be there from all over the country."

A Bowling Green fiddler, Elzie Estes, remembers a particularly telling incident:

"...Left before dark that night, I took the fiddle. I had a date with a girl to go to Barren River. Close



to Meader, Kentucky. Had to go down there and cross the river in a canoe. A feller lived on the other side of the river, was Roscoe Owens, and we got down to the river and hollered, and he come down to the river in a canoe and set us across. We had to walk about three more miles 'till we got to the party place. We got there we played 'till about 11 o'clock that night. We left there down to the river and crossed in another place."

Change was slow in an environment as isolated as that and it is likely that the music and the rural society of early Kentucky would have continued essentially the same if the great technological changes of the 20th century had not taken place. Phonographs were introduced into the country shortly before 1900, and automobiles began to be seen about 1910. People began to buy radios in the 1920's and televisions in the late 1930's or '40's. Most rural families, though, didn't have electricity until after World War II. Each stage of this gradual move toward modernization increased communications and increased the mobility of the rural family, causing several changes in the traditional music and it's social setting. Where neighbors once travelled miles to hear local musicians play, they began to travel at night to hear a new radio or phonograph. John Rountree remembers:

"We had the first old graphophone that was there in that whole country there....and people'd come a good long ways - a half-mile or maybe a mile some nights - to listen to that daggone thing."

The listening audience began to fall away, and the dances became less frequent. People could drive to town for movies or shows and became increasingly less dependent on making their own music. Different musical instruments were introduced, replacing the fiddle as a favorite pastime. Younger people began to play the guitar and learned music from records and the radio, and by World War II, fiddle music was looked on as a relic that was largely maintained by older people but given a degrading public image through the increasingly more influential mass media. The modern sentiment was for progress, and progress meant constant change. There was little patience with music that reflected the values of an essentially unchanging, non-progressive age. The traditional style of playing music was no longer perpetuated by the necessity of isolation, and was no longer relevant to the times, as John Rountree points out:

"That was back before radio and television, you know, and that was the only way they could get music. And these things, that's what's killed music, 'cause it's too easy to turn on that button, you know. People got to buying them and they just laid down on the music..."



The reaction to this change on the part of the traditional fiddlers varied. Some refused to play newer music and continued playing their own way with friends. Others found it harder and harder to understand the newer music, especially the newer fiddler styles, and simply stopped playing. James Hood, from Scottsville, Allen County, relates:

"A lot of them has quit. I know a lot of fiddlers I thought was better than anything you hear now. But they said that so many of 'em got playing different kinds of music, playing different styles, that they just quit. I've had lots of 'em to tell me that."

Others assimilated the new styles and repertoire and abandoned their old music. Very few young musicians picked up the fiddle, however, and those that did learned the newer bluegrass and Western-style fiddling that they heard on the radio. Fiddling became more of a conscious art in which the goals were speed and technical skill, and in which the aesthetic was largely centered on virtuosity. In traditional fiddling, the old-time dances required, out of necessity, that timing, rhythm, and smoothness be aesthetic virtues, but as the social need for dances died out, the polished, professional performances heard on the radio and records became the standard for good music. The change was inevitable and inexorable, and many traditional fiddlers whose tastes could not change could only look back nostalgically on an age gone by. Chester Huffman, from Glasgow, Barren County, express a general sentiment held by older fiddlers:

"Back then, seemed to me like people got more out of it than they do now. The joy that they got out of playing, you know. They'd play a tune and then they'd sit and talk about it."

James Hood comments:

"They've added a lot onto these tunes, changed them, take two or three and mix 'em up. It's quite a bit (different). I love the old playing better'n I do the kind they got now. But you run up on one now that still plays old-time fiddle tunes. They played slower. They didn't use a lot of fancy stuff. It was smooth. I don't know ...it just had something it ain't got now. It's the feeling you put into it."

Traditional fiddle music today is no longer an integral part of rural Kentucky society. It is a speciality, and almost a novelty, that, as John Rountree points out, is enjoyed at club-organized weekly dances or at fund-raising fiddle contests:

"They have quite a few dances now, but most of it's club stuff. If you don't belong to a club, well, you don't get to go much."



The truly traditional style fiddle playing is seldom heard at these dances or shows, though, because it does not reflect the driving, technical virtuosity that is demanded by the listener today. As a viable form that was once distinct in itself both in style and repertoire, traditional music in Kentucky today is a lost art that will die with the last generation that learned and experienced it.

#### TRADITIONAL FIDDLE MUSIC IN ITS SOCIAL SETTING

There was hardly an occasion in the rural society of early Kentucky where fiddle music was not heard sooner or later. Dances and music parties at people's homes, of course, required a fiddler, but at almost any social supper, festival, or celebration, someone would bring a fiddle either for music or to start an impromptu dance. Of all the social occasions, though, the square dance was probably the most popular.

#### THE SQUARE DANCE

There were essentially two occasions when a square dance would take place. The first was when neighbors got together specifically for the purpose of having a dance. James Hood recalls that most dances of this sort were in the wintertime at a neighbor's house:

"There wasn't no special places. They'd just get together and say, 'Well, you come to my house this week and we'll play and dance tonight.'"

Charlie Kessinger, a 91 year old fiddler from Butler County, remembers dances from his youth:

"I've played for a good many dances. We'd have one through the wintertime pretty near every week. They didn't miss many weeks unless it was awful bad... They'd come from an area of about three miles. You see, it was the horse and buggy days and they couldn't go to town. Well, they just went around to people's homes. And they'd have a square dance, and they'd take the furniture out of one of the rooms and it'd be enough to have a square in there. And they had a lot of neighbors that square danced, and they maybe danced 'till two o'clock in the morning."

Obtaining the fiddler was a prerequisite for a dance, and he seldom refused, both because he enjoyed playing, and because he often was promised pay for his services.. Jim Bowles, from Monroe County, recalls:

"They would just come and get me. They'd bring a horse or sometimes come after me in a buggy. A lot



of times just come, just drive up, say 'You're going,' you know. Wasn't no cars."

Gusty Wallace remembers getting paid for late nineteenth century dances:

"...Five cents on the corner. That would be about 20 cents for the set. A nickel back then looked as big as a dollar. My daddy worked down here at Sulphur Well, I don't know how many years, for fifty cents a day. Now you think about it, the difference from his day to now. If you could get 20 cents it was good stuff - half a sack of flour."

A fiddler's job at a dance was hard work, though, and he earned his pay. John Rountree seldom played for dances for that reason:

"It'd take a man with a big ambition to play, 'cause it'd take as many as twenty couples at one time in the square, and they'd circle dance - we call it square dance - and they'd just keep on going around and around 'till this fiddler'd just finally have to call 'em. They didn't have no mercy on him."

The relationship between the fiddler and the dancers was important, because he had to keep the time for them as well as make the music as lively as possible. A fiddler who was perceptive and could lead the dance with his music was in great demand and valued highly in a community. Gusty Wallace aptly described a fiddlers' job:

"It wasn't everybody could play for a square dance. They didn't have the swing to it. You know, if you can get 'em just dancing just right, let 'em get that swing, you take that, and you can watch them, and be right with 'em. Why, sometimes they'd dance all night. And they'd generally dance fifteen minutes, and that was a set. Generally, the same old tune played through. A lot of 'em does it that way. I never could. I'd get tired of it. And I'll tell you about the dancers, too. You could see they begin to slow up, y'see, and you can change off on another piece and they'll just pep right up."

#### COUNTY COURT DAY AND MEDICINE SHOWS

Every good-sized town in rural Kentucky had a County Court Day once a month. It was an occasion for selling and trading goods, seeing shows and programs, and visiting with neighbors. It was always an exciting and colorful day to look forward to, and Chester Huffman remembers that there was sure to be a fiddler or two to make music:



"On Saturday evening, everybody came to town. And over in the courthouse yard, there was liable to be two or three outfits agoing out there trying to sell medicine and stuff. Somebody over there selling ice cream, two cones for a nickel, you know. Used to be a bandstand over in the corner of the courthouse yard, and used to be somebody up there maybe a-preaching. And he'd have somebody to sing or make a little music to get a crowd together."

The old-time medicine shows were a big part of such a day, and they were an important early source of outside influence on the music of this area. The medicine shows often travelled extensively, and occasionally would bring a fiddler or some other musician with them to draw a crowd. Elzie Estes recalls one such show:

"...called him Dr. Botchner. He was at Scottsville, County Courthouse Day. I believe it was on Saturday. He had a fiddler with him from Pine Bluff, Arkansas, and he played Mockingbird and he played Pretty Little Miss. He'd have a boy up there with him, playing the guitar. I don't know if he was with him or not, but that fiddler was with him all the time. ...Old man about fifty, I guess. Kind of tall and slim-like. They'd get up on the stand and play a few tunes and get a big crowd up there listening, and he'd start selling his tonic. He sold it for a dollar a bottle. And these men, it was just like you see in these picture shows. They was running up there buying. I stood around there and listened to the music as long as I could. I tried to catch all the music I could catch."

More often than not, though, the medicine man would travel alone and pick up local musicians to play for him. Sometimes he would stage an impromptu fiddler's contest to draw a crowd:

"At Round Hill, there was an old medicine man running an outfit. Go from town to town, you know. They'd put off a little sleight-of-hand show, and to make it more entertaining and to draw a bigger crowd for his business, why, he'd let up put on a fiddler's contest or something like that."

#### THE TUNES

Traditional fiddle playing reached its height of popularity in this area by about 1900. At that time, there were probably more than a hundred fiddlers of varying degrees of skill within a fifty mile radius of Bowling Green. The total repertoire of the area must have been over a thousand tunes. Many have been forgotten, or lost with the deaths of older musicians, but still,



from the playing of only eleven fiddlers, over 150 different pieces have been recorded for this study. Some of the most interesting are:

SCOTT'S RETURN - This is a very rare, unusual tune, apparently known only by Milo Biggers of Glasgow, Barren County. "An old soldier returned, y'know. His name was Scott. And that's all I know. I heard old man Henry Carver talk about it ... the Civil War."

A STRANGER ON A MULE - "A fiddler in Allen County, Catlett Korner, me and him played together right smart," Elzie Estes relates, "and I learned a few tunes from him. And that's how I learned A Stranger On A Mule. He told me how he learned it. He didn't know the actual tune of it - what it was. He saw a feller going down the road riding a mule, whistling that tune. He liked it so well, he took out to the house and got his fiddle and played it. And he played it every time we got together. And I learned it from him." Milo Biggers recognized the tune as an old hornpipe that was once played around Barren County.

STEAMBOAT BILL - Jim Bowles told this story concerning this tune: "I know the first tune I ever learnt to play was Steamboat Bill. There was an old colored man, when we lived out on Uncle Jim Carter's place. They had him a-building a barn. I remember hearing him sing, and I kind of picked it up: Steamboat Bill, steaming down the Mississippi. Steamboat Bill, thought I heard the puffing of the whippoorwill."

SLEEPING ON A CORN COB BED - A rare local tune played by Milo Biggers. It may be related to Sugar In The Gourd. "Page Ellison used to play it mostly. Used to be around at these contests."

LADY'S FANCY - Played by Gusty Wallace and Wallace Thompson, this tune is completely unrelated to a Texas tune by the same name. It is also known locally as Rattle-Tumma-Snodge and in northern Kentucky as Dark Corner.

Because traditional fiddle music is closely linked to a little known and almost undocumented past, it will never be adequately understood by either the folklorist or the musicologist. It is no longer a functional part of rural society and the bulk of the music has died with the last generation of traditional country fiddlers. Its true value as both a social phenomenon and a distinct musical form has not yet been made clear, but with the aid of local studies such as this one, the raw material still remaining will be available for future interpretation by scholars.



SOME EFFECTS OF THE HERBICIDE  
GLYPHOSATE ON JOHNSONGRASS RHIZOMES

by  
Marlin Moody

ABSTRACT

Growth chamber experiments were conducted to study some of the effects of the herbicide glyphosate [N-(phosphonomethyl) glycine] (Roundup) on johnsongrass [Sorghum halepense (L.) Pers.] rhizomes. Johnsongrass developing from 2, 3, 4, and 5-node rhizome sections were treated with 2.24 kg/ha of glyphosate in 30.62 liters/ha of water.

All above-ground parts of the johnsongrass plants were killed. After twenty days all rhizomes were harvested and examined. The waiting period allowed for completion of herbicidal activity and for germination of additional rhizome nodes. Discoloration within the rhizome sections was used as an indicator of rhizome viability. The 2-node rhizome sections were completely discolored indicating 100% herbicide translocation, whereas, there was no definite pattern of discoloration within the other lengths of rhizomes.

INTRODUCTION

Johnsongrass (Sorghum halepense (L.) Pers.) has been classified as one of the world's ten-worst weeds (3,10). This weed is found in most of the United States and is one of the most common weeds in the South (1,8,10). It is evident that johnsongrass has been a problem to many people because it has been called many names most of them indicating johnsongrass to be a liability rather than an asset. Some of the names given to johnsongrass have been: Means grass, Meanie grass, and bankruptcy grass (4).

Johnsongrass is difficult to control because it reproduces vegetatively by rhizomes and also by seed (1,2,5,6,9). The extensive system of rhizomes is the main problem (7) and also the reason that control of this weed is usually expensive (7,8). Cultural and herbicidal methods of controlling seedling johnsongrass may be very effective, however, the rhizomes will over winter in the field and germinate the following year (6). Any practice which fails to kill all rhizomes will not give completely effective control (6,9).

Kentucky is an area which lies between southern regions of the U. S. which sometimes utilize johnsongrass as a forage and northern regions where many johnsongrass rhizomes are killed by freezing temperatures. Therefore johnsongrass may be a greater weed problem in Kentucky than in some other states.

This study was conducted to observe some of the effects of the herbicide glyphosate (Roundup) on johnsongrass rhizomes and to



obtain facts concerning this herbicide's use as a control for this noxious weed.

## MATERIALS AND METHODS

On November 2, 1973, johnsongrass rhizomes were dug from the Western Kentucky University farm. All soil and foreign matter were washed from the rhizomes with tap water. Rhizomes were placed in 3.78 liter metal cans containing a soil mixture of 50% sand and 50% peat moss. All rhizomes were placed at a soil depth of approximately 5.00 cm. The cans had holes in the bottom to allow normal drainage. At the time of planting, the soil was watered to field capacity.

The metal cans were randomly numbered one through sixteen. All cans contained two sections of rhizomes. There were four cans with 2 nodes per section, four cans with 3 nodes per section, four cans with 4 nodes per section, and four cans with 5 nodes per section.

All containers were placed in a growth chamber with florescent and incandescent as the light sources. Temperature controls were set at 27°C for 13 hours and at 18°C for 11 hours. The light period was during the 27° temperature and the dark period during the 18° temperature.

Plants began germinating within one week and were allowed to grow with no special attention except watering for twenty-eight days. On November 30, 1973, an application of 2.24 kg/ha of glyphosate in 30.62 liters per hectare of water was made. At the time of herbicide application the average height of the johnsongrass plants was 38.0 cm.

The entire experiment was repeated beginning February 6, 1974, with some minor changes in procedure. Planting depth in the latter study was 2.5 cm rather than the 5.0 cm depth used earlier. During the second study rhizomes were allowed 28 days after herbicide application before being harvested rather than 20 days after application.

## RESULTS AND DISCUSSION

In the first study the 2-node sections were completely discolored indicating 100% herbicide translocation, whereas, there was no definite pattern of discoloration within the other lengths of rhizomes (Table 1).

In both studies, the longer length rhizome sections produced a lower percentage of plants. However, there were no significant difference in the germination of plants from 2, 3, 4, or 5-node rhizomes. These results agreed with those found by C. G. McWhorter in a similar study (11). The plants with the more shallow planting depth produced a higher percent of plants germinating from possible sites (Table 1).



During the harvest and examination it was noted that practically all rhizomes which had produced a plant before herbicide application were completely killed. A very important point is that during the two experiments only a total of three plants germinated after application of herbicide. This indicates that discoloration of rhizomes might not be a valid indicator of rhizome viability.

Basing my conclusion on these two studies it appears that the effectiveness of glyphosate is equally good on rhizomes containing 2, 3, 4, or 5 nodes per section.



TABLE 1

Effect of glyphosate on johnsongrass rhizomes.<sup>a</sup>

|                         |   | % of rhizomes<br>dark-colored | % of plants germinating<br>from possible sites |                 |
|-------------------------|---|-------------------------------|--|-----------------|
|                         |   |                               | 1st study                                      | 2nd study       |
| Nodes<br>per<br>rhizome | 2 | 100                           | 37 <sup>a</sup>                                | 50 <sup>a</sup> |
|                         | 3 | 29                            | 34 <sup>a</sup>                                | 42 <sup>a</sup> |
|                         | 4 | 59                            | 31 <sup>a</sup>                                | 46 <sup>a</sup> |
|                         | 5 | 51                            | 28 <sup>a</sup>                                | 30 <sup>a</sup> |

<sup>a</sup>All means in a column followed by the same letter are not significantly different at the (.05) level using Duncans Multiple Range Test.



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DISCRIMINATION AGAINST THE OBESE  
by  
Larry Jones

America - land of the thin and home of the persecuted fat. The obese are anathemas in our society, treated as pariahs for no other reason than because they are overweight! The list of injustices which confront fat people includes prejudice, discrimination, cultural rejection, ridicule, and social ostracism. This paper is intended to accomplish the following objectives: (1) explore some of the many ways against which the obese are discriminated, (2) examine certain attitudes which lead to such discriminations, and (3) offer suggestions aimed at ameliorating the status of fat people in our society.

Why is it that the obese are held in such low esteem by the general population? One of the primary reasons seems to be the attitude, held by many, that fat people are morally weak - they have no pride in themselves and lack will-power. Many people believe that a person is fat simply because he or she is too lazy to push himself away from the table. Obesity is seen as having but one cause, lack of self-control.

This view, however, is grossly inaccurate.<sup>1</sup> Indeed, Charlotte M. Young, professor of medical nutrition at Cornell University, believes that the term "obesity" is misleading and should be replaced by the term "obesities" for this reason:

...we are not dealing with a single disease but rather with a symptom of some underlying energy imbalance which may have many causes: genetic, metabolic, psychological, sociological, cultural, or even economic. The obesities, particularly in children, are complex problems to which there are no simple answers.<sup>2</sup>

Another attitude which leads to a low appraisal of fat people, quite obvious in our society, is the view that heaviness is extremely unattractive. As a culture, America seems to worship thinness.<sup>3</sup> Americans' outlook regarding physical beauty, which equates a heavy body build with ugliness, is probably the fundamental cause for our maltreatment of the obese.

The media, to a large extent, help maintain and reinforce our low view of fat people. Advertisements which emphasize thinness, stereotyped portrayals of fat people in television and books, and comedy spoofs which treat obesity in a derisive manner are all examples of how fat people are denigrated by elements of the media. Advertising is undoubtedly the chief offender, though. How many heavy models does one find in advertisements? Very few, if any. He or she is often dressed in unattractive, unbecoming styles. It is very interesting that even in "Weight Watchers," official magazine of the diet group, clothes which are designed



for heavy people are modeled by thin individuals.<sup>4</sup> It seems rather obvious that these various elements contribute to the view that fatness is very ugly and undesirable.

Regardless of the reasons why people hold disparaging attitudes toward the obese, the consequences of these attitudes are quite severe. As a result of such attitudes, there is widespread cultural rejection of fat people. Obesity, in our society, impedes social interaction even more than various physical handicaps.<sup>5</sup> Stephen A. Richardson and his associates tested over 600 ten and eleven year old children from different areas of the country to determine whether or not there is cultural consistency in the rejection of the handicapped. The boys and girls tested, including a number who were handicapped, represented various races, socio-economic statuses, and environments: urban, suburban, and rural. The children were shown a set of six pictures: pictures of a normal child, a child whose face was disfigured, a child in a wheelchair, an amputee, a child wearing a leg brace and using crutches, and an obese child. The children ranked the pictures according to which one they liked best, second best, etc. The drawing of the obese child was consistently ranked last. The study: "...shows that identical rankings are given for sub-groups differing on other variables: sex, urban-rural, socio-economic status, and setting of interview. For race, the rankings are almost identical."<sup>6</sup> Therefore, obesity can quite literally be viewed as a physical handicap and the obese can be considered a minority group.

Indeed, in a study conducted by L. F. Monello and Jean Mayer, it was found that obese young adults displayed personality characteristics that are "strikingly similar to the traits sociologists have shown to be typical of youngsters in oppressed minority groups who were victims of intense prejudice."<sup>7</sup> Considering the prejudice and cultural rejection which confront fat people in America, it is not surprising that there is much discrimination against them.

Let us now examine a few of the various ways in which the obese are discriminated against in our society. Some types of discrimination are quite obvious; others are not readily noticed.

Although few people realize it, the way in which we use our language discriminates against the obese. Isn't it significant that in our society there are "fat" slobs but no "skinny", "short", or "tall" slobs? Skinniness is an amoral attribute; it is absolutely no reflection upon one's personality. There is no moral judgement implicit in the label "skinny as a rail". Clearly, though, the label "fat as a hog" is almost as much an assessment of one's personality as of his body build.

Consider, also, the names that Americans, especially children, call fat people. The list of derisive names includes "Fatso", "Piggy", "Crisco", "Two-ton Tessie", "Blimp", and so on ad infinitum and ad nauseum. Many jingles and short poems are



composed for fat people; "Fatty, Fatty, two-by-four; couldn't get through the kitchen door" is an example. The obese probably receive as much verbal abuse as any minority in the country.

Americans seem to have a double-standard concerning the obese; thin people are judged in one way, fat people are judged differently. Natalie Allon, who is a doctor of sociology and who is also an authority on the problems encountered by the obese, explains the double-standard in the following manner:

"The stigma attached to fatness means that many privileges which are open to "normals" are considered illegitimate for the fat person - as eating an ice cream cone... For a fat person to be caught in the act of an eating crime...is proof of his or her irresponsible lack of control..."<sup>8</sup>

Another such privilege which is taken for granted by thin people but, often avoided by the obese because of social disapproval, is swimming in public pools and at beaches. How do many people react to a very fat person in a bathing suit? Some people think nothing about the matter but others may stare disapprovingly, quietly chuckle, gawk, or even utter an exclamation of disgust, as if the fat person has no right to spoil the scenery with his presence! It isn't surprising, then, that many obese individuals never go swimming - even if they love the sport.

Job discrimination against fat individuals is extremely common. The vast majority of instances of discrimination goes unreported; the actual number of cases, if known, would quite likely be staggering. Let us now consider some of the reasons for the pervasiveness of unfair employment practices.

When hiring a secretary, clerk, etc., many employers overlook a person's qualifications and personality; appearance seems to be their primary concern. A fat person - even with a friendly, pleasing manner and good qualifications, will many times not be hired for a job which requires a lot of contact with the public. One reason for this is that employers are afraid that a fat person would give the customers a bad impression of the company.<sup>9</sup> But as Dr. Allon states: "Such esthetic considerations of image are only admitted off the record; on the record, the health angle and the vague sense of insurance problems of the overweight are stated..."<sup>10</sup> There are occasional exceptions to this, however. One obese girl who applied for such a job was told by the interviewer that "...it won't look right for the company to have a lot of overweight people as checkers..."<sup>11</sup> Many restaurant managers won't hire an obese waiter or waitress, probably because they fear that some customers would be offended if their meals were served by a fat person.<sup>12</sup> Many large companies have found a way to reduce the number of obese applicants which their employment directors would only turn down; they simply tell the employment agencies not to send fat people for interviews.<sup>13</sup>



Perhaps the following example best demonstrates the degree to which the obese are discriminated against by employers. On January 1st, 1969, the Labor Department reported: "Seven girls, who apparently could not get jobs because of their overweight appearance have all been employed after losing more than 300 pounds among them in six months..."<sup>14</sup>

Now let's examine an area which affects the young obese - school. To a fat child or adolescent, school can be a hellish experience. Many are laughed at, bullied, and left out of social activities. Some of the ridicule directed toward obese students, even those who are in high school, is shockingly insensitive, malicious, and cruel - redolent of a circus side-show where, for a price, one can marvel - and laugh at - the "fattest person on earth!" Indeed, that is exactly how many obese students are treated - as though they are side-show freaks. What are some of the ways in which fat students are discriminated against?

Physical examinations which are given at school can be very distressing to a fat child. The child is usually weighed during the examination, and his classmates are often allowed to hear his weight. Such a procedure presents no problems - unless you happen to be fat. In our society, a child who wore leg braces would not be forced to compete in a foot race with his non-handicapped classmates; his teacher would recognize the cruelty and possible ridicule which such a race might entail. The teacher would make every effort to avoid drawing attention to the child's handicap. Yet, obese children are forced to be weighed in front of their classmates - which certainly, in one sense, is a form of competition. It is indeed an unfortunate paradox that we recognize the cruelty involved in one situation, yet not in the other. Having to be weighed in front of his or her classmates can have serious impact upon an obese child, as W. Cahman points out:

...a conspicuously conducted weigh-in by a school nurse can start a fixation on weight problems, both for the child himself and for those around the child, which subsequently, is hard to overcome.<sup>15</sup>

A fat adolescent, in many cases, is excluded from most social activities. There are several reasons for such ostracism. One is simply that many young people, both male and female, are somewhat hesitant about being seen with an obese person. Thus, the obese student often has few friends and therefore, fewer opportunities to engage in social activities.

An obese student's social life, as far as the opposite sex is concerned, is often nonexistent. Boys will usually not ask a fat girl for a date - even if they would like to - because they are afraid of being laughed at.<sup>16</sup> Obese males face similar problems. Girls are just as concerned as boys with the potential threat to their social standing which a date with an obese individual would pose.



Fear of ridicule, then, is the primary obstacle which prevents obese adolescents from enjoying the many social activities which most of their thinner classmates take for granted.

One more major type of discrimination confronts fat students - the seats they sit in. Classroom desks, in all levels of our educational system, are usually designed to accommodate thin people. To an obese student, such desks can be inconvenient, difficult to get into and out of - and therefore embarrassing, and in some cases, even painful! It is probably very difficult to pay attention in class when one is in a state of constant discomfort, but that is exactly what many obese students are expected to do.

Name-calling was discussed earlier in the paper; it, too, is one of the major types of discrimination found in schools. Thus, there are four chief types of discrimination against fat students: name-calling, physical examinations, social ostracism, and seats which are uncomfortably small.

Small seats, however, are certainly not confined to our schools; they are practically universal in our society. Here are a few examples of how fat people are punished by small seats. For many obese individuals, going to the cinema is out of the question because the seats aren't large enough for them to sit in.<sup>17</sup> Some busses contain a type of bucket seat in which an obese person cannot fit and therefore, must stand up.<sup>18</sup> Stalls in public restrooms are often too small to allow an obese person to turn around in comfortably. In many men's restrooms, the urinals are divided by tall partitions. In some cases, these partitions are spaced less than 23 inches apart - quite a squeeze (if not an impossible one) for a fat man! Though thin people rarely notice such discriminatory elements in our society, they can be quite annoying to the obese.

Now that we have reviewed a few of the various types of discrimination which confront fat people, some suggestions will be offered. These proposals are designed to ameliorate the status of fat people in America and, hopefully, **decrease the amount** of prejudice and discrimination against them.

If any significant progress is to be made in this area, the general population must be made aware of the types of injustices which fat people must live with. The National Association to Aid Fat Americans is trying to accomplish this task.<sup>19</sup> And as Dr. Allon, adviser to the group, explains, it is also trying "to open up the definition of contemporary American society beyond its rather closed and rigid basis in thinness - fat and thin can be beautiful, neither must or must not be."<sup>20</sup> To change our attitudes concerning pulchritude so that they include fat people is indeed a challenging goal. The advertising industry could greatly increase the chances that this goal will be realized simply by using some heavier models. These steps could possibly



influence a great many individuals to reexamine their attitudes toward fatness. And in the long run, any major change taking place in the way we treat fat people will probably depend, in a large measure, upon such a reappraisal by the populace.

Alleviation of common prejudices and disparaging attitudes toward the obese would be greatly facilitated by large-scale dissemination of reliable information regarding the causes of obesity. Only as more and more people realize that fatness is often not caused simply by overeating will prejudice and discrimination against the obese decline.

A conscious effort should be made to change the way in which our language is used to malign the obese. Labels such as "fat slob" influence our attitudes negatively and tend to reinforce the popular prejudices against the obese. Calling a fat person "Blimp" is no different from calling one who limps "Crip"; people must realize this before they can act accordingly.

The people who design seats (and also those who buy them) could do an immeasurable service to the obese. Would it be unreasonable for a theater to contain a number of double-wide chairs to seat those who cannot fit into the regular seats? It is certainly difficult to see how. Practically every business could contain a few such seats without incurring any sizeable expense. Schools should not be expected to buy all new and larger desks. But could not there be one or two tables in a classroom where fat students (and any other students who so desired) could sit in straight-backed chairs? This situation could be handled in such a way as to avoid making the fat child feel conspicuous or "privileged". If urinals are to be divided by partitions, the partitions should be far enough apart to accommodate the obese as well as the thin. If the amount of available room prohibits such spacing, then privacy should be sacrificed for equal opportunity. If such measures were taken, the obese would enjoy many activities which before were avoided.

This is not to say, however, that fat people can easily be accommodated in every respect. But the instances in which the cost of accommodating the obese is truly prohibitive appear to be very few in number.

Weigh-ins at school which are conducted publicly should be discontinued. Surely any inconvenience or lost time which might result if students' weights were taken in private would be dwarfed by the immeasurable gains to the fat students.

Ideally, most types of job discrimination against the obese would be illegal. There may be some jobs which an obese person could not do well, but unless it could be clearly demonstrated that a job's requirements would disqualify a fat person, discrimination on the basis of excess weight should be illegal. Some problems might arise if such a law were passed but it is



difficult to see how they could be of any major importance. Of course, if our attitudes toward the obese changed, such a law would be unnecessary. But since no major change in our attitudes is likely to occur in the foreseeable future, such a law is necessary if fat people are to be treated fairly.

In closing, it should be noted that this paper does not suggest that all fat people in America are ridiculed and discriminated against. There are undoubtedly many fat people who do not feel mistreated or left out. It seems undeniable, though, that the great majority of overweight Americans have experienced maltreatment, ridicule, and one or more types of discrimination. This paper has been written for these people, then, with the hope that exposing Americans' shameful treatment of the obese will redound to the betterment of fat people's lives.



## FOOTNOTES

<sup>1</sup>Charlotte M. Young, "The Fat Child," Today's Education, March, 1971, p. 58.

<sup>2</sup>Young, p. 58.

<sup>3</sup>"Expert Says Being Overweight Doesn't Always Call for Dieting," The New York Times, January 19, 1967, p. 30.

<sup>4</sup>Interview. Pamela Repp, Weight-watcher. Bowling Green, Kentucky, November 15, 1973.

<sup>5</sup>Werner J. Cahnman, "The Stigma of Obesity," The Sociological Quarterly, Vol. 9, 1968, p. 295.

<sup>6</sup>Stephen A. Richardson, Norman Goodman, Sanford M. Dornbusch, Albert H. Hastorf, "Cultural Uniformity In Reaction to Physical Disabilities," American Sociological Review, 1961, 28: p. 429-35.

<sup>7</sup>"Future in The Scale," The New York Times, March 12, 1967, VI, p. 97.

<sup>8</sup>Edwin A. Roberts, Jr., "The Stigma of Being Obese," The National Observer, October 13, 1973, p. 6.

<sup>9</sup>Roberts, p. 6.

<sup>10</sup>Roberts, p. 6.

<sup>11</sup>Cahnman, p. 297.

<sup>12</sup>Repp.

<sup>13</sup>Interview. Betty Anderson, Weight-watcher. Bowling Green, Kentucky, November 15, 1973.

<sup>14</sup>"Weight-Reducing Program Helps 7 Girls to Get Jobs," The New York Times, January 2, 1969, p. 64.

<sup>15</sup>Cahnman, p. 285.

<sup>16</sup>Cahnman, p. 297.

<sup>17</sup>Judy Klemesrud, "For People Made Shut-Ins by Obesity, a Project Called HOPE," The New York Times, January 20, 1971, p. 40.

<sup>18</sup>"Topics: Fat Men of the World, Unite.," The New York Times, July 23, 1966, p. 24.

<sup>19</sup>Roberts, p. 6.

<sup>20</sup>Roberts, p. 6.



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# MANAGEMENT CONSIDERATIONS IN EMPLOYEE PROMOTION

by  
Robert W. Ross

## INTRODUCTION

Employee promotion is a subject which can cause a company many problems, although it occurs in almost every business in America today at one time or another. Some companies make the necessary changes quickly and efficiently, while others are not so lucky. Promoting the right person into a key executive position might be the most important decision made by a company, often meaning the life or death of a firm. Since this decision can be so vital, it is important that the company executive be familiar with the tools and methods available to him in making the right decision. The predominate concern here will be to reveal these methods and procedures, and to discuss their proper use, minimizing the chances of making the wrong decision. Although this is the primary concern, it should be remembered that knowledge of promotional methods, on the part of the employee, can be quite valuable. Being able to know what the manager is looking for can aid the potential promotee in presenting his qualifications to obtain the maximum effect in the manager's consideration of his attributes.

## PROMOTION FROM WITHIN

Promoting from within can be beneficial to both the company and the individuals involved. An internal promotion system can be an aid in recruiting. The potential recruiter can see that he has a future at the company and will usually prefer this arrangement to the company that does not have such a policy. Promoting from within implies that the experienced employee is more familiar with the organization and does not have to adjust to a totally alien environment. His familiarity with policies, procedures, and methods will aid him in his new position, thereby allowing him to concentrate his time on the job itself.<sup>1</sup>

Although internal promotion sometimes aids in job orientation, several problems can be caused by a completely internal program. A program that does not utilize new and creative ideas and suggestions can be very damaging. Companies as well as people can become stagnated when there is an absence in flow of innovations. Problems can also occur when proper steps are not taken to prevent 'post-promotional blues'. That is, after a promotion has been made, negative feelings can arise in those people who were considered for promotion but were not promoted. This can also occur in businesses that hire outside the company. It is the job of the receptive executive to prevent small disappointments from becoming major office crises.



Another problem that can occur is the seniority slump.<sup>2</sup> This happens when promotion policies become slack and people are promoted simply on the basis of seniority. Here again it is the responsibility of the executive to differentiate between competence and years of service while making promotional decisions.

### SELECTING THE RIGHT EMPLOYEE

The responsibility of maintaining an effective program is not nearly as critical as the selection of the right promotee for the right job. This all-important task should be undertaken with all the tools available to the executive. Outside consultants, although expensive, can often make the best decision on which man to promote. They have the advantage of complete objectivity in making their selection as well as possessing the necessary expertise in employee evaluation.

Methods used by consultants include various tests and interviews. Testing techniques can provide an over-supply of data, but this data can be nonconclusive in helping make the actual promotional decision. If the results of any one or set of tests yield approximately the same results, it would be necessary to use less analytical means such as the interview approach. However, it is usually best to begin the employee evaluation with the testing method, because it generally eliminates the less-likely candidates faster.

The tests used in evaluating an employee for promotion are usually the same types of tests given in hiring situations. Intelligence, aptitude, achievement, and personality tests can be used in employee evaluations. However, it should be remembered that the use of non-approved tests can be a dangerous practice, since it has been proven that certain companies have used tests simply to eliminate minority groups. When tests are used in employee evaluations, it is important to remember that the validity of even widely used tests is sometimes controversial. Therefore, making judgments based entirely on test results should be avoided.<sup>3</sup>

Before administering any test, the criterion for promotion and the proper test for measuring those qualities should be determined. For instance, if the requirements for the new job include a great degree of employee interaction and co-operation, a personality test should be administered. Likewise, if the job requires learning new skills and methods, it would be best to use either an aptitude or achievement test.

### THE INTERVIEW

After the tests have been administered and the top candidates selected, the next evaluation criterion is usually the interview. This is where the consultant can really show his worth.



He is able to evaluate the candidates with more objectivity and less prejudice than can an intra-office committee. This is especially true in medium size companies where employee interaction is extensive enough that employees know each other but limited enough that prejudice is commonplace.

Several interview methods can be utilized in promotee selection; (1) the direct method, (2) the indirect method, and (3) the patterned method. These three types are mentioned because they are the most widely used and most effective although other interview patterns are available. In the direct method, the interviewer is in charge of the conversation and discusses job ability topics with the interviewee. Later he evaluates the responses given by the different candidates. The indirect method is considerably different as the interviewer suggests topics and lets the promotee elaborate on them and generally control the interview. The patterned method is similar to the direct method, but the interviewer has instead a predetermined battery of questions or a questionnaire form to evaluate the employee.

Another method of promotee selection is one used in a banking study where attitudes of employees toward promotion were evaluated in a questionnaire circulated throughout the bank. A sheet containing a list of six potential promotion factors was presented which required the employees to rank the factors they felt were the most to least important. Averages computed by the firm doing the study were used to evaluate the data and give the firm an idea as to what the employees felt were justifiable criterion in promotions. With these facts, management was able to select promotees on the basis of requirements set up by the employees themselves.<sup>4</sup>

The use of consultants and outside studies can be quite expensive and many companies feel that the utility derived cannot be justified economically. In smaller companies, intra-office evaluations can often be as effective as using a consultant because knowledge of job performance for all potential promotees can usually be readily found.

If management does not feel that it can select the right employee for promotion simply by knowing him, any of several steps can be taken. Not only can tests, studies, and interviews be helpful, but meetings between the employee and his future subordinates, future bosses, and future peers can often yield startling results. Individual confrontations between the promotee and his new boss can give an idea of the degree of co-operation that will result after the promotion. The same is true of meetings with the promotee and his future subordinates. If these people are allowed to discuss with the candidate and then make recommendations to the management, the chances of selecting the best employee are greater. In addition, the promotees new work group will accept him readily since they had a part in selecting



him. This one fact can often relieve the complaint of, 'He just doesn't seem to fit in with our department', sometimes heard by management. As a matter of fact, if the promotee's subordinates and supervisors have an active part in his selection, they will go out of their way to help him fit it.

### EMPLOYEE EVALUATION

Another method of intra-office evaluation of promotee candidates is the achievement record. This method is best utilized in evaluating long-term employees, but it can also be used to a certain degree to evaluate employees who have been at work at least a year. Quality and quantity of work produced, outstanding accomplishments, and general suitability of the worker in his job can all be used to determine the right promotee. The collection of this data can present a problem, but it can be obtained from the worker's peer group and superiors. The people in charge of the promotion should also be careful to note the promotee's level of satisfaction in his present job. A man who fits into one niche well usually fits into an upper level job as well, unless the person is one who is 'promotion oriented'. A promotion oriented person is one who is more concerned with someone else's job than his own. These people should be considered for promotions just like any other employee, but it must be kept in mind that their job dissatisfaction might continue up through the advancing job levels. If this is thought to be the case, it would be a good idea to pass the employee up in promotion decisions. Discontentment on the job can be caused by many other factors, though the employee might insist that his problems are due to the alienation with his low hierarchy job. In summarizing, it can be said that the dissatisfied blue collar worker will also become the dissatisfied executive.

Worker evaluation techniques should include the above methods in measuring the following worker traits: Intelligence, judgment and accuracy, character-integrity and dependability both on and off the job, personality-enthusiasm, self control, initiative, job experience and knowledge, value to company, quality and quantity of work, physical appearance and health, interest in work and regularity of attendance.<sup>5</sup> Of course, many of these factors are objective and cannot be evaluated by any concise scientific means. Therefore comparative analysis between candidates becomes necessary. However, it should be remembered that objectivity in ranking these traits is very important; hence, it is best to have several people making the evaluations.

There are several viable means by which characteristic factors may be ranked. One of these methods is the checklist method where numerous phrases and questions referring to specific factors are listed as shown in example 1.<sup>6</sup> This form should be filled out by the interviewers immediately after or during the interview.



Another similar device of rating employee factors is the rating scale method.<sup>7</sup> The factors are listed in the same manner as the checklist method, but instead of answering 'yes' or 'no', a numerical value is assigned by the interviewer and entered in the blank to the side of the respective factor. A scale of from 1 to 10 can be used with ten being the best possible score. This particular type of rating lends itself well to computerized statistical analysis. The evaluation forms are concerted to punch cards and each evaluation factor is averaged in total and by interviewer. Use of this method allows the candidate a more objective evaluation since the numerical grade he receives on each factor is not the score given by any one interviewer but is instead a score derived from the evaluations made by all the persons on the interview panel. Not only is this method less prejudicial, but it is also fast and easy to use. Other evaluation methods may be used to grade each applicant on a comparative basis, but the numerical method is the easiest to employ since relatively inexpensive computer time is used to average the responses of the interviewers instead of valuable executive time.

The factors that can be effectively evaluated by the above methods include: character, integrity, enthusiasm, personal appearance, dependability, self-control, initiative, and interest in work. In addition, testing methods can best evaluate the factors of personality, intelligence, judgment and accuracy. The other factors: job experience and knowledge, regularity of attendance, and quality/quantity of work can be evaluated from existing attendance records and job histories. All of these factors taken together determine the all-pervasive criterion: the value of the person to the company.

#### THE EMPLOYEE'S FAMILY - HIS WIFE

For the executive to effectively evaluate an employee and select the right promotee, he should understand the motives behind the man's behavior; what goes on outside the office in the man's life.

The employee's family is the biggest influence on his behavior outside the office while his wife is the biggest influence in the family, hence lending credence to the old adage that "Behind every great man is a great woman." This indeed is true because the co-operation of a man's wife is a prerequisite for his success. Often a job promotion means a relocation, and a wife must understand and accept this fact. A study cited in Business Horizon showed that 87 percent of the wives polled would be willing to move if it meant a promotion for their husbands while only three wives said definitely no. Many wives indicated that there were no disagreeable aspects to their role as the executive wife, but the most frequent complaint (30%) was their husband's absence from home while on trips or working late hours.<sup>8</sup>



The role of the wife of the executive is a complex one. She should be fashion minded, but not extreme in dress. She should not drink too much, smoke too much, or be overly friendly. She should not make others feel uncomfortable by appearing 'too good'. On the whole, she should be inconspicuously conspicuous with her clothing, hair style, and jewelry all reflecting her personality. As business moves out of the office and into the home, the role of the wife as an entertainer increases. She must entertain, be entertained, and be entertaining.<sup>9</sup>

Today the executive's wife has become not only a factor in the promotional process but also an integral part of the management social system. In business decisions of the future, it may become necessary for corporations to give more attention to the executive's wife, due to her increasing role as a partner in the business world. On the other hand, it may be that her influence on her husband's career in the future will diminish due to her own increased involvement.<sup>10</sup> Even so, the woman's role in business, whether it be strictly as an executive's wife or as both a wife and working partner, will become an increasingly important force in the life of the future executive.

#### TYPES OF PROMOTIONS

There are basically three types of promotions that the manager should be aware of: (1) vertical, (2) horizontal, and (3) inter-company. Vertical promotions are the most common type. Under this promotional method, the employee is raised from one job level to another level inside the same company. This method, also called 'promotion from within', is usually the most desirable being preferred by both manager and employee.

Horizontal promotion is sometimes less desirable than vertical promotion because it generally occurs for less than progressive reasons. Under this method, the employee is shifted from one position to another on the same level in the company hierarchy. The reasons for promotions of this type vary of course, but generally horizontal promotions are used to shift useful, but hard to get along with, employees from one department to another.

Inter-company promotions are unique in that they are controlled by the employee instead of the employer. They may be either horizontal or vertical in nature. He may take a job with a different company entering at a higher level (vertical), or at a level equivalent to that of his old job (horizontal).

#### AFTER THE PROMOTION

After the promotion has been made, the job is not complete, but rather, it has just begun. The training of the promotee in his new job is as important as his selection. The manager should be aware of the aspects comprising the post-promotion



office atmosphere. Like the weather, it can sometimes be bright and sunny, but sometimes it can be cool and gloomy. A newly promoted employee can become easily discouraged dealing with new people, new disappointments, and new achievement standards.

It is management's responsibility to keep the lines of communication open after the promotion and to monitor feedback not only from the promotee but also the promotee's subordinates. The manager should be able to dispel any feeling of doubt arising in the promotee's mind concerning aspects of his job, and he should be able to reinforce the promotee's feelings of confidence. Co-worker resentment among non-promoted candidates should be monitored using a low key approach with discipline taken only if criticism continues. After the promotion, it is wise to have periodic 'rap sessions' between upper management and the promotee to maintain the communication links. This can often instill badly needed confidence in the promotee and management.

#### CONCLUSION

The life of the company, the career of the promotee, and the sanity of the corporate officers often depend on making the right decision in promotional situations. The higher the job level, the more critical is the decision. This is why it is imperative that the executive have an awareness of the various methods available to him in making any promotional decision. With more information, the chances of making a wrong decision are smaller. Selecting the right employee can assure the company's survival in a rapidly changing business environment.



# EXAMPLE 1

| Factor           | Question  | Check Answer |     |
|------------------|---|--------------|-----|
|                  |   | Yes          | No  |
| A. Dependability | 1. When you give him a job to do, are you confident that you will get what you want when you want it? | ---          | --- |
|                  | 2. Does he follow instructions on routine jobs with a minimum of supervision and follow-up?           | ---          | --- |
|                  | 3. Does he frequently need follow-up on the most routine duties?                                      | ---          | --- |
|                  | 4. Can you depend on him to try out new ideas?  | ---          | --- |
| B. Attitude      | 1. Is he a good team worker?  | ---          | --- |
|                  | 2. Is he receptive to change and new duties?  | ---          | --- |
|                  | 3. Does he go out of his way to cooperate with his fellow workers?                                    | ---          | --- |
|                  | 4. Does he have a constructive attitude toward the company?   | ---          | --- |
|                  | 5. Does he have a constructive attitude toward his coworkers?   | ---          | --- |



## FOOTNOTES

<sup>1</sup>Robert L. Mathis, "Promoting From Within", Management World, June 1973.

<sup>2</sup>Robert L. Mathis, "Oh My God I've Been Promoted", Management World, July 1973, p. 4-6.

<sup>3</sup>John Neuner, B. Lewis, Norman F. Kallaus, Administrative Office Management, (South-Western Publishing Co. 1972) pp. 305-307.

<sup>4</sup>Martin J. Gannon, "Employee Perceptions of Promotion", Personnel Journal, March 1971, pp. 312-15.

<sup>5</sup>Neuner, p. 653.

<sup>6</sup>Ibid.

<sup>7</sup>Ibid.

<sup>8</sup>Margaret L. Helfrich, Barbara J. Toole, "The Executive's Wife", Business Horizons, August 1972, pp. 91-95.

<sup>9</sup>Ibid.

<sup>10</sup>Ibid., p. 95.



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## RAY BRADBURY AND THE ANGELS

or

Rudolf Bultmann's Failure To Recognize The  
Three-Storied Universe In Modern Eschatology  
If It Should Fall On Him At The Kennedy Space Center

by

Nancie Calloway

During the first half of the twentieth century a new word was coined in theological language. This new verbal, this new analytic tool is "to demythologize". The man credited with its origin, Rudolf Bultmann, is quick to point out its inadequacy due to its negative connotation. But negative or not the real value lies in its application to the mythology of the Bible (particularly that of the New Testament in which Bultmann's main interest lies).

In his understanding the prefix "de-" means more of a translating action than one of strict elimination. The mythology of the Bible is not entirely stripped away, rather it is given a healthy treatment of Bultmannian existentialism and returns de-historized and de-symbolized fit for the consumption of modern man. One could go on to impressive lengths to examine the validity of Bultmann's many "translations", but that is to ignore or take for granted the soundness of what seems to be Bultmann's first premise. That is, modern, scientifically minded men cannot possibly understand the Kerygma as it is written. And this starting point is decidedly open to question.

To determine just whether modern man can or cannot understand it, it is necessary to specify what he is required to glean from the New Testament. Bultmann views its contents as divided into that which is the kernel of Christian truth, the Kerygma, and that which is strictly oriented to first and second century Palestinian culture. The first part strangely resembles twentieth century existentialism when Bultmann is through defining it. But the remainder must be denuded of its cultural trappings or totally excised if it has no further value.

In general what Bultmann prefers to eliminate within the "mythological world view" is first, the idea that man lacks control over his life and second, that unworldly things are described in worldly terms. Bultmann notes, concerning the first concept, that throughout the New Testament man is both called to existential decision - as to whether he will accept his finitude and encounter the grace of God - and at the same time is expected to consider himself a pawn to the will of God. Bultmann would exclude any line of reasoning which entailed man's reliance upon supernatural forces. Certainly man is limited, but to personify the actions of nature or to attribute them to a God who meddles in the affairs of humans would, in Bultmann's eyes, be entirely wrong-headed.



Attempts to appease a deity of the natural world into providing rain or stopping the sun in the sky to benefit a battle plan is totally fallacious thinking to any scientifically bred man. Likewise it would be improper to think that an individual's life is governed by any sort of deus ex machina.

In this personification of a God who reaches his guiding hand down from above, we also encounter an aspect of Bultmann's second objection to mythological thinking: that myth refers to unworldly things in worldly terms. All concepts of God as a "father" go immediately. God as the "just ruler" flies out next. Modern man, Bultmann tells us, can no longer conceive of reward or punishment in death, the concept of sin, of atonement.<sup>1</sup> Death is equally accorded to all, the "guilt of the sinner" is merely the forboding realization of one's own finitude, and this certainly leaves no cause for Christ's atonement and sacrifice. (If God cannot be personified then it seems that Christ cannot be deified.)

A second aspect of the denotation of unworldly things into worldly terms is that of the entire ancient world cosmology. In "New Testament and Mythology" Bultmann gives a very adequate summary of this world view:

The cosmology of the New Testament is essentially mythical in character. The world is viewed as a three-storied structure, with the earth in the centre, the heaven above, and the underworld beneath. Heaven is the abode of God and of celestial beings - the angels. The underworld is hell, the place of torment. Even the earth is more than the scene of natural, everyday events, of the trivial round and common task. It is the scene of the supernatural activity of God and his angels on the one hand, and of Satan and his daemons on the other. These supernatural forces intervene in the course of nature and in all that men think and will do. Miracles are by no means rare. Man is not in control of his own life. Evil spirits may take possession of him. Satan may inspire him with evil thoughts. Alternatively, God may inspire his thought and guide his purposes. He may grant him heavenly visions. He may allow him to hear his word of succor or demand. He may give him the supernatural power of his Spirit. History does not follow a smooth unbroken course; it is set in motion and controlled by these supernatural powers. This aeon is held in bondage by Satan, sin, and death (for 'powers' is precisely what they are), and hastens towards its end. That end will come very soon, and will take the form of a cosmic catastrophe. It will be inaugurated by the 'woes' of the last time. Then the Judge will come from



heaven, the dead will rise, the last judgement will take place, and men will enter into eternal salvation or damnation.<sup>2</sup>

This view, Bultmann constantly points out, is no longer held in a world of science and technology. It is an example of "primitive science", an attempt to explain world events without the knowledge of modern physics and psychology. Therefore it is of no use today and certainly a detriment to the understanding of the Kerygma.

This is undoubtedly true in the case of many would-be believers, those who hold Science in such high esteem that they are blinded to the subtler values of New Testament imagery. However, Bultmann should be hard put to explain how in the face of this dichotomy of cultures traditional Christianity still retains a substantial following among the highly educated. And with the exception of the most literal of fundamentalists, one is constantly coming in contact with Christians who will readily vouch for the validity of modern science and the Bible as well. There are in fact many scientists who hold unshakeable faith in Christ.

Bultmann missed this observation when he equated believing with understanding. That is, when he insists that mythology has no value as it stands and must be either eliminated or translated, he seems to operate on the assumption that because a man cannot believe a thing he cannot understand it. This certainly does not follow. No mature adult believes in Santa Claus, but we all understand him as the Christmas spirit of generosity. And even though he might answer that these Christians engage in their own private demythologizing, it is obvious that very few tamper with the imagery as Bultmann recommends. And if some seem capable of digesting Biblical accounts whole and unadulterated it may actually be that modern, scientific man does not need the demythologizing technique.

Why can man no longer comprehend a three-storied universe? Well, for one thing we know the earth is round, and there is no such thing as a localized Heaven or Hell. In fact we rarely speak of Heaven and Hell these days. But in a time when Heaven and Hell were suitable topics of conversation, even in the last century, and hovering today in some backward corners of the world, there would certainly be a tendency to localize such otherworldly places if only as an aid in conversation. Why, for instance, are maps printed with North at the top and South at the bottom? If the world is round and the universe is endless then there could be no such thing as top to bottom or side to side. And yet we make such perfectly coherent references to going "up" to Canada or "down-under" to Australia. There is even "uptown" and "downtown" which have no bearing whatsoever on whether the main part of town is built on a hill. These are merely directional terms to aid in conversation; they alone have no meaning. The question now is, was the three-storied universe



taken seriously at the time the gospels were written? As today there were undoubtedly many who took it quite literally, but it was certainly not the only contemporary view. A good example can be found in Josephus' "Discourse Concerning Hades" that the positions of Heaven and Hell were not taken with extreme seriousness. At one point he remarks "...you shall see the ascent into the immense heaven plainly..." thus implying that Heaven is located in an upward direction. However in the same essay he speaks of the otherworld as a place into which one descends, where "the just are guided to the right hand" and "the unjust, they are dragged by force to the left hand."<sup>4</sup> Surely Josephus did not think heaven had an established location in the sky and a branch office in Hades. It is rather more likely that he was using a traditional reference to point out the justice of God. Why should we take literally what the ancients did not?

But taken seriously or not the three-storied concept is not illogical. When man first realized an eternal, omnipotent, supernatural God he simply could not locate him on the earth. What would be more appropriate than the sky? And as for a Hell in the earth...well, where were the dead taken? They were buried; they were placed in caves. Man looks to the sky for reward and glory. No one even pauses to ask why men in search of adventure, of raw materials for industry point their rockets at the moon instead of the earth's interior. This concept should not trouble our times in the least.

Again from "New Testament and Mythology" Bultmann voices another major division between the New Testament and modern comprehension: "...man is essentially a unity. He bears the sole responsibility for his own feeling, thinking, and willing. He is not, as the New Testament regards him, the victim of a strange dichotomy which exposes him to the interference of powers outside himself."<sup>5</sup> Certainly the Biblical references to powers beyond man viewed them as supernatural, either from angels or demons. But this does not mean that present men are in any more control over their lives. Today a man is not shaped by destiny, but his environment. The pervasive modern psychological myth of recent years is that every man is a product of his society. A man who holds up a bank and shoots ten people in the process rarely deserves to shoulder the entire guilt. He undoubtedly was an underprivileged child, a member of an oppressed minority group; obviously he cannot be blamed for the violent acts he commits. Neither ancient nor modern man prefer to blame themselves. Chance and outside powers have been the constant companions of the guilty. How can Bultmann hope to convince modern society of its inherent freedom when Skinner's disciples reach down into grade-schools?

What area they leave uncovered is claimed by the theory of tabula completeum, that man is governed by his genes. No, there are no personified Fates or devils, nor the everpresent



hand of God contained in the modern world view. But there is no more room here for the path to authenticity than free will in Biblical times. What is there to impede the 20th century man from identifying with the ancient world view? Only the imagery. And judging from the increasing interest in the occult and the popularity of such films as The Exorcist, it is but a small leap. In fact, in the April 29, 1974 issue of Time (p. 99) the Center for Policy Research reported the results of a survey taken in the spring of 1973 (before the impact of The Exorcist) in which it was asked if the devil existed. Out of a nationwide sample of 3,546 adults 48% "were certain the devil exists" and 20% "thought his existence probable".

Neither is modern man at a loss to create his own imagery. Bultmann's favorite example of the irrelevance of the New Testament view to the present is the doctrine of eschatology, that "cosmic catastrophe" which was to begin with the resurrection of Christ and end with flocks of angels swarming out of the breaking heavens, tooting trumpets and announcing the Final Judgement of the Lord. The world, he points out, has not ended yet and certainly will not end in such a manner...as every school-boy knows. However, in the last three or four years there has been a revitalization of this doctrine along with increasing converts to primitive Christianity. In many sects, such as the Children of God, eschatological-type speculations are given display window attentions. In discussing the recent cosmic flop (before it became known as such) Moses David's pamphlet entitled "More on Kohoutek" asks "What terrible events will the Comet bring?" and "80 days then THE END?"<sup>6</sup>

How can such groups thrive in a scientific age? Well, one could point to the world crisis and nuclear weapons... But why return to such outworn Biblical trappings? How can any well educated child of the most progressive nation in the world claim the earth will soon end and Jesus will return to separate the good sheep from the bad? It is as in the examples of the three-storied universe and the life controlled by forces beyond, if the basic line of thought continues, the image is not far away.

But why do these new Christians not resort to contemporary images? Perhaps many have, but because of their similarity to Biblical themes they easily adapted the latter. Similarity? Just what current images are similar to those in the New Testament? First of all let us take a look at one example of twentieth century eschatology.

Few men can abide the thought of the world's destruction without some salvation of human life or accomplishment. Some may envision the moment alien feet trod the scorched soil of earth, discover a vault, blast it with their ray guns and find within the chronicles of humanity's progress. Other less gloomy sorts see mankind rekindled on the moon or another planet, either by man's own exploratory rockets or transferred at the last moment



by more advanced humatoids who have been hovering about in silent machines observing the failure of the earthlings. But modern and ancient men, still looking towards the ever promising sky, hope to find their future there. In Myth and Modern Man, Raphael Patai observes that "...both the Biblical myths of the eschatological type and the science fiction myths fulfill an identical, or, in any case, very similar, function: to reassure man concerning his future."<sup>7</sup> And drawing the parallel deeper Patai goes on to say that "Authors writing about UFO's have repeatedly pointed out the passion evoked by the UFO as a piece of discussion. Some, following in the footsteps of Carl G. Jung, who considered the belief in flying saucers a direct heir of a past and lost religious belief in a divine mediator, see in the angel of religious mythology the precedent of extraterrestrial visitation, and hence, latter-day heirs to angels."<sup>8</sup>

It does in fact seem quite logical for modern man to relate spacemen to angels. In the case of such books as The Chariots of the Gods the process proves to work as easily in reverse. That is Biblical mythology can not only be demythologized; it can be remythologized to suit our own culture. We discover that the Greek gods were possibly visitors from another planet, who did travel across the sky in chariots, that the Hebrews called these wonderous creatures angels, and the Babylonians took their lessons in architecture and astronomy. Whichever mythology one deigns to subscribe to, the basic components consist of man's continual search for a meaning to his existence and its survival. If Bultmann is to demythologize Biblical eschatology, he must replace it with a new mythology or watch as the world creates one.

The urge to mythologize is an inherent part of humanity. Mythology is in itself a higher, more symbolic, more satisfying language than any one needs to manipulate in day to day affairs. It is more than a system of culture-related images. Mythology is mankind's only attempt at a universal language, for within every folktale worthy of its innumerable relations there is a meaning fundamentally true to human nature. The story is bound to its culture only within the symbols; the question is, how firmly bound? If the story is not inseparable from its culture, (if ancient metaphors still have some communicative value) then Bultmann has lost his most important justification for the entire demythologizing process.

This zest for interpretation may, in fact, be harmful to Christianity. Paul Tillich in his Doctrine of Religious Symbolism points out two vulnerable aspects of religious imagery. First, the symbol may be distorted to a literal meaning which is an interpretation Bultmann apparently assumes must follow from any sort of belief in symbols. Second, the symbol may be distorted to a mystical meaning, thus losing its concrete value and becoming irrelevant to human life.<sup>9</sup> And it is this second danger to



which Bultmann's theories are susceptible. By reducing the Kerygma's historical grounds to a young rabbi caught up in 1st century zionist movements and eschatological hopes, by reducing its message to a call for authenticity, Bultmann has transformed the entire significance of Christ into a symbol. The Kerygma becomes an object to be encountered in a moment of complete renunciation. The person of Christ has become mystified beyond all earthly recognition. He has become The Encounter. He is crystalized into each man's moment of authenticity.

Bultmann has certainly supplied the Church with new symbols and it cannot be said that they are without meaning. The objection is that they cannot answer the spiritual cravings of men. In Myths to Live By Joseph Campbell makes this observation: "Where the synagogues and churches go wrong, is by telling what their symbols 'mean'. The Value of an effective rite is that it leaves every one to his own thoughts, which dogma and definition only confuse."<sup>10</sup> And he goes on to quote Thomas Merton in this same respect. "'It is by symbolism [Merton tells us] that man enters affectively and consciously into contrast with his own deepest self, with other men, and with God. God is dead...means, in fact that symbols are dead.'"<sup>11</sup> Merton, recognized that the imagery of Christianity brought unity to the faith. Through symbolism each Christian recognizes a Christ that is at once mystical and literal, holy and human. It is through the story of Christ that men believe. They best address themselves to specific events and teachings than some naked psychological process. Bultmann may be right in that man's search for authenticity is the root meaning of the Kerygma. Faith may be no more than a momentary encounter with one's finitude. Modern man may understand it. But he can never say that modern man is limited to this interpretation and that he can understand and appreciate no other.



## FOOTNOTES

<sup>1</sup>Rudolf Bultmann, Kerygma and Myth, Ed. by Hans Werner Bartsch, trans. by Reginald H. Fuller, London: S. P. C. K., 1964, p. 7.

<sup>2</sup>Kerygma and Myth, p. 1.

<sup>3</sup>The Works of Josephus, trans. by William Whiston, Philadelphia: David McKay Publisher, (no date), p. 929.

<sup>4</sup>Ibid., p. 927.

<sup>5</sup>Kerygma and Myth, p. 6.

<sup>6</sup>Moses David, "More on Kohoutek", Children of God, (November 4, 1973).

<sup>7</sup>Raphael Patai, Myth and Modern Man, Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1972, p. 86.

<sup>8</sup>Ibid., p. 313-14.

<sup>9</sup>Battista Mondin, The Principle of Analogy in Protestant and Catholic Theology, The Hague: Martinus Nijhoff, 1963, p. 141.

<sup>10</sup>New York: The Viking Press, 1972, p. 97.

<sup>11</sup>Ibid., p. 257.



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THE HYPERKINETIC CHILD:  
DIAGNOSIS AND TREATMENT  
by  
Gene Boaz

The late President Truman once stated that the key to success for any person in today's society was education. These words have been echoed by many professionals since Truman. In recent years, many dramatic advances have been made in supplying an equal opportunity of education for all Americans. However, there have been few constructive advancements in the diagnosis and treatment of the hyperactive child. Oftentimes, the hyperactive child is considered nothing but a disruptive force in the classroom and is treated not with understanding but with physical abuse. The over-riding lesson we learned in our class was that aggressive behavior led to more aggressive behavior. One then might legitimately wonder what has been taught our hyperkinetic children.

Statistics show that from five to twenty percent of American children suffer from some form of hyperactivity.<sup>1</sup> Hyperactivity has been defined in many ways, but perhaps it can best be described as a symptom picture. The symptom picture is a combination of one or more disruptive characteristics in a single child. These characteristics include overactivity, distractibility, impulsiveness, unpredictability and emotional non-control in both happy and violent states.<sup>2</sup> One might ask why there should be such concern over a minority of students. The answer to this question is that this minority can disrupt the classroom to the point where little can be learned.

With the quantity of overt actions that the hyperkinetic exposes, one might think it is easy to diagnose this child. It is not for as one doctor states "docile children will react to poor or inappropriate teaching, cultural deprivation, and racial discrimination similarly to the overactive child."<sup>3</sup>

The main difference between the hyperkinetic child and the normal child is that the former has little control over his actions and therefore can be disruptive under any stimuli. While the normal child might be disciplined by punishment or lack of reward, the hyperactive child is only confused and responds with more hyperactivity. Furthermore, the problem seems to be compounded in a study by C. Keith Conners. The study shows that hyperactivity traits are indiscriminate in relation to social class, race or age of children. The only significant difference being sex: boys tend to be more overactive than girls.<sup>4</sup>

There are many causes for hyperactivity and in order to effectively diagnose and treat the disease the concerned parties need to acquaint themselves with this problem. There are basically three reasons for hyperactivity amongst children. The first is



abnormalities in physical development. This concerns a lack of development in the brain's activity controlling area. This can be caused during pregnancy by sickness of the mother, during the birth process if abnormalities develop, and in the first three years of life through childhood diseases. The second cause is one of an emotional base. In this case the child's home is in chaos and he is striking out for attention. The last cause is one in which the child has failed to mature at the proper rate. This child also seeks attention by not acting his age. Since the cures for all the causes are different, it is important, as mentioned above, that the disease be diagnosed correctly.

Since the hyperkinetic disease is so hard to pinpoint, there should be a concerted effort by teachers, physicians, administrators and parents to spot this sickness. The hyperkinetic child will show his traits in the first three years of school. This child will have a short interest span and will disrupt the work of others. He will become repeatedly involved in playground fights and will show constant twitching, similar to epilepsy. At home, he shows signs such as bed wetting, lack of appetite, problems with sleeping and profuse lying.<sup>5</sup>

The first reaction of an adult to these actions is anger and punishment, but if the child is truly hyperkinetic he will only react with similar actions. The best reaction to the above mentioned traits is to draw information on the child from various sources and combine this information with professional independence in order to prescribe the correct treatment.

Since there are many causes of hyperkinetic activity, the treatments prescribed each child should be different. In addition, since every child's chemical makeup is different, the drugs prescribed, if any, should vary with the child. There are two schools of thought concerning the treatment of overactive children. They are the use of drugs and what could be termed alternative methods.

Drugs are used primarily with children whose hyperactivity can be traced to physical causes. Amphetamines such as dexedrine, benzedrine, Ritalin, Tofranil and Aventyl are used. These drugs create a mood altering effect on the hyperactive child. Dr. Edward Ladd describes this effect in the following manner.

By blocking out messages about fatigue, discomfort, or hunger, which would normally interfere with his concentrating on an activity, they pep him up. In the case of the medically hyperactive child, it seems, the blocking out of messages that make him fidgety enables him to be quieter and to do better work. Incidentally, the effect they have of speeding up some persons are quieting down others, often called paradoxical, provides a pretty good guarantee



that they will make children more subdued only if the hyperactivity is involuntary.<sup>6</sup>

The correct drug and its dosage varies with the child, therefore many times a hit and miss process occurs in finding the right treatment. There seems to be little scholarly debate on the effectiveness of drugs on the hyperactive child, for they work. The main debate lies in the mere use of drugs in treating children.

The case against drug use cures is impressive but to this writer's point of view non-conclusive. Drs. Ladd and Wortman raise their points against drug use in their articles. Dr. Ladd feels the most dangerous effect of this drug use would be in the possible side effect of addiction physiologically. His second point is that many children might be mistaken for hyperactive children and be given drugs when they did not need them. His third point is that the use of these drugs will contribute to the drug culture. His fourth point is that drug use by the child hampers his ability to work out his own problems. And finally, by forcing drugs upon a child, one is tampering with that child's legal rights and civil liberties.<sup>7</sup>

Dr. Ladd's first point is totally incorrect, for following studies on drug treated hyperactive children by Dr. Maurice Laufer have shown these children have no side effects provided the medications were correct.<sup>8</sup> His second point is tragic but hardly the fault of the drugs. Adequate research should be carried out on each child so that mistakes can be held to a minimum. In addition, the effects on the non-hyperactive child, as Dr. Ladd mentioned earlier, are paradoxical to those on the hyperactive child. Since the non-hyperkinetic child will show hyperkinetic traits under the influence of the drug, an error can be immediately noticed. Few people have ever been addicted to amphetamines by the use of one pill. His third point, while pertinent to today's society, is nevertheless not totally well founded. Drugs have been used for years in medicine and their use will continue. Furthermore, one must wonder of what drug culture he is speaking. If he is speaking of the youth drug culture, realistically, how many third graders taking their medicine are going to equate their actions with that of the illicit drug culture? If he is speaking of the adult drug culture containing many governmentally okayed and taxed drugs then these new drugs are merely a continuation of the old. Also, the administration of these drugs should be done with the utmost control, preferably by parents. Ladd's fourth point while it might be valid is not the whole truth. The fact is most children's hard decisions are solved by adults. Once again Ladd fails to reveal the whole truth on his fifth point. While a child's legal rights and civil liberties should be cherished, courts in this country have been highly liberal in the amount of supervision they allow parents. In addition when a child is disrupting a class, he is infringing on the right of others.



Dr. Richard Wortman says "Amen" to Dr. Ladd's comments and adds the point that we should not indiscriminately use drugs as a panacea but rather get to the bottom of the problem and solve it without drugs. In addition, he states that if drugs are to be used the decision to use and the administration of these drugs should be made by one who is not directly involved in the situation.<sup>9</sup>

While one should not use drugs as a cure all, nevertheless, in certain situations, the medicinal use of drugs is necessary. This writer agrees that the correct problem should be diagnosed, but if drugs are necessary for classroom peace then use them. Dr. Wortman's second point logically would keep angry teachers and overly concerned parents from making the final decisions on drug use. On the surface, he has made a valid point. However, if the independent source reached his decision based on information supplied by the overly concerned parent and the angry teacher, the decision probably would not be exactly correct. Tragically, most decisions are reached in this manner. Considering the similar results, why should the decisions not be reached by those most involved with the situation.

The second area of treatment is a category which includes the alternative methods to drug use. These methods are most effective in treating the emotionally or non-maturing based hyperkinetic child. In some cases, they are necessary because the child is totally non-receptive to drug treatments. They are also more acceptable to our drug fearing society. The non-drug medications increase the scope of treatment from just the child to the child's surroundings. Under these treatments, the parents, teachers and doctors of the child play a larger role.

The first of the non-drug alternatives is to do nothing for the child and let him solve his own problems. Dr. Maurice Laufer states that most children grow out of their hyperkinetic activity by the age of thirteen.<sup>10</sup> The do nothing school of thought feels the child will be a stronger person for working out his own problems. The inherent fallacy of this idea is what happens in the meantime. That is to say, the child and his classmates will get little out of their educations. The child will be a constant parental problem to the point where he might get into trouble with the law. The culmination of these facts is that the child's development for thirteen years will be virtually a void.

The second non-drug alternative is that of working at the basis of the problem and not with its symptoms. This method is accepted by most psychologists and is based on sound reasoning. The treatment in dealing with a hyperkinetic child would be to search for reasons behind the child's hyperactivity. It would try to find out what mistakes parents and teachers were making in dealing with the child and suggest alternative actions. The method would then not be just concerned with the child's hyperkinetic symptoms. It should be noted that this method should be used even if drugs are finally used.



The major weaknesses of this treatment are the amount of blame placed on teachers and parents and the fears of this school of thought concerning drugs. Parents and teachers are not perfect and attention should be brought to their mistakes, but all the blame cannot be placed on their shoulders. In addition, under certain select circumstances drugs must be used. Indeed with the cerebrally injured hyperkinetic child, parents and teachers have little to do with and can do little for the ailment while drugs are essentially the only cure.

The last and most current alternative method to drug use is that of music. The music is used in a background sense to provide a creative atmosphere for a child's field of thought. The creative atmosphere causes the hyperactive child to work more creatively and effectively. A study of four hyperactive children revealed that their effective work doubled when the Beatles' records entitled "Sgt. Pepper's Lonely Hearts Club Band" and "Magical Mystery Tour" were played in a normal classroom situation.<sup>11</sup> Though music in treating hyperkinetic children is rather modern and unproven, its effectiveness might be explained by the fact that most people become more artistic when surrounded by art.

Perhaps the best way to describe any medical diagnosis and treatment is to present a real life situation. In relation to the hyperactive child a situation is presented in the May 10, 1973 Courier Journal. The article dealt with a mother's search for what was wrong with her children. She was certain that her first born son was hyperactive, but doctors assured her he was "just a boy and that he would grow out of it". The child, David, did not grow out of his aggressive state but was frustrated at home and later in school and became more aggressive. The mother finally took her son to a specialists at the Kentucky Department of Health's Child Development Program where he was judged to be hyperactive. After drug treatments were advised and effectively administered, the child's condition improved. In the meantime, the woman's marriage failed and her younger son, Paul, who had been sickly during his first three years of life, developed the same aggressive attributes as his older brother. The heartbroken woman immediately put her son on similar treatments. Paul also reacted well and all are living pleasantly in Louisville, Kentucky at the present time.<sup>12</sup>

There are many lessons from this story. The first is that a concerned parent should deal with a specialist and not a general practitioner when dealing with the problem of hyperkinetic behavior. The second is that a parent should not be afraid of the obvious and should act correspondingly. The third lesson, dealing specifically with the younger child, is that each hyperkinetic child should be judged individually and not collectively. Paul's problem might have stemmed from the breakup of his mother's marriage and his own sicknesses. Luckily for



both boys, their problems were diagnosed correctly as being mental disorders and the correct treatments were given.

As mentioned earlier, the hyperkinetic disease strikes five to twenty percent of this country's children. In number terms, this percent equals two and one half to ten million American children. Since these young Americans are scattered randomly and indiscriminately across the country, chances are most schools will be faced eventually with the hyperkinetic child. The methods these schools use in dealing with the hyperkinetic child might mean the difference between success and failure on the part of that child and his classmates.

Truly, as President Truman said success can be defined in terms of education. In allegorical terms, the hyperactive child has two strikes against him before he starts school. The schools of this country should avoid putting the third strike on him. This can be accomplished by intelligent, quick and accurate diagnosis and treatment of this child's problem. The treatment once correctly diagnosed can be carried out by drug or non-drug alternatives, whichever is applicable to the individual minor's condition.

In the first paragraph of this paper, there was the statement that little constructive advancements had been made in diagnosing and treating hyperactive children. This statement concerns the schools applications of these hyperactive principles and not the scholarly debate concerning them. In other words, schools today by and large still view the hyperactive child as an odd ball and not as a child requiring special attention regardless of the discussions concerning the subject which might be found in the teacher's lounge of each school in America. As the old expression goes, "Everybody's talking, but nobody's listening." The hyperkinetic child and his classmate's educational accomplishments depend on how the schools of this country solve the hyperkinetic problem. This problem must be solved in the first three years of school when each child's education is most impressionable to success or failure. Since the future greatness of our country depends on the accomplishments of our youth, we must not let our children fail. The cures are in front of us today, and all we need to do is use them.



# FOOTNOTES

<sup>1</sup>Edward T. Ladd, "Pills for Classroom Peace?", National Elementary Principal, L (April, 1971), 42.

<sup>2</sup>Maurice W. Laufer, "Medications, Learning, and Behavior," Phi Delta Kappan, LII (November, 1970), 169.

<sup>3</sup>Ibid., 170.

<sup>4</sup>C. Keith Conners, "Symptom Patterns in Hyperkinetic, Neurotic, and Normal Children," Child Development, XLI (September, 1970), 677-8.

<sup>5</sup>Ibid., 674.

<sup>6</sup>Ladd, National Elementary Principal, 43.

<sup>7</sup>Ibid., 44-5.

<sup>8</sup>Laufer, Phi Delta Kappan, 170.

<sup>9</sup>Richard A. Wortman, "Learning Disabilities or Learning Problems?", National Elementary Principal, L (April, 1971), 48-52.

<sup>10</sup>Laufer, Phi Delta Kappan, 170.

<sup>11</sup>Thomas J. Scott, "The Use of Music to Reduce Hyperactivity in Children," American Journal of Orthopsychiatry, XL (July, 1970), 677-80.

<sup>12</sup>Irene Nolan, "The Hyperactive Child," The Courier Journal, May 10, 1973, Sec. B, p. 1-2.



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ANCIENT GREEK MYTHOLOGY:  
ITS ORIGINS AND EFFECTS

by  
Royce Hawkins

For as long as man has existed, the one quality which has deemed him most unique is his insatiable questioning curiosity. "Why?" became the most basic concept on the human culture. The eternal search to answer all of these "whys" of the universe leads in many different directions, and the search is endless because new answers can only create new questions. In ancient times, stories developed in various forms concerning almost any imaginable subject. Man began to study man and his relationship to and significance in the universe because, of all things, this was what he understood least. From these stories grew the ancient Greek myths which are now in themselves a great source of question. Commenting on the study of ancient mythology, Julia Loomis of Columbia University says:

The field of mythology, although regarded by many scholars as not quite "respectable," is a happy-hunting-ground for anyone with a theory he wants to propound, whether he is a classicist, an anthropologist, or just someone with an idea. All he needs is to have clear in his mind the points he believes are true, and then pick out the myths and make the comparisons that will prove his point. Someone with the opposite idea can do exactly the same.<sup>1</sup>

The search for answers continues to diversify thought. But what is clear among these conflicts is that a study of ancient Greek mythology and its origin certainly provides insight into man's nature and his basis for civilization.

"How old is Greek mythology?"<sup>2</sup> This question appears at the beginning of Martin Persson Nilsson's book entitled The Mycenaean Origin of Greek Mythology. The answer to this question can never be fully determined, but one point is certain - it has its beginning deep in the pre-recorded times of the ancient Greek states. For generations it existed only orally and was not formally recorded in a lasting, finished, stable form until the time of Homer. "It cannot be doubted that myths existed before Homer."<sup>3</sup> The changing nature of the stories prior to their permanent recording confuses the issue, making it even more difficult to pick out origins. Edward E. Barthell, Jr. views the problem involved in dating the very early Greek mythology by stating:

Greek mythology was constantly in flux. It never anciently existed in a universally accepted form; like Topsy it "just grewed up." Many myths, which at first were purely local, came to such wide currency that



eventually they were comprehended within the general overall plan; but the plan itself was one conceived in the minds of only a few, among whom Hesiod and Apollodorus are perhaps the outstanding examples. Contrarily, it is certain that owing perhaps to a lack of information, either by way of written record or hearsay - many of the later writers were wholly unaware that their added stories (conceived in plausible conjecture or deliberate imagination), were to become synthesized parts of the connected narrative.<sup>4</sup>

Thus, mythology grew without regard to time of origin. A snow-balling process took place which culminated generations later in written versions of the ancient stories. Mythology had no point of birth; it was a slow process of evolution which grew from the curious nature of mankind.

An explanation for the rise of a great deal of ancient Greek mythology can be found in the theory of nature-myths. The questioning mind of man sought to explain the seemingly miraculous forces of nature that were beyond his understanding. Alluding to this curious spirit of the primitive Greeks of about four thousand years ago, Henry I. Christ says:

These people knew nothing about "the laws of nature," but they were inquisitive and they were imaginative. Who makes the echo? they asked. Who causes the rainbow? Who brings the dawn? Who drives the sun across the sky every day? Notice that they asked who causes these natural happenings, not (as we do) what causes them, for to these people nature was personal and intimate. They answered these questions and many others by telling colorful, imaginative stories.<sup>5</sup>

These tales were passed down through generations orally before ever recorded in a finished form. H. J. Rose discusses the relation of the Greek gods to natural phenomenon by noting that they were deemed to have control over the forces of nature. He discounts the thought of personification or allegorization concerning the relationship of the gods and nature, rather looking toward "a sort of imaginative speculation" about forces that defied their understanding. Rose notes the thoughts of the great Sanskritist F. Max Muller, who viewed the primitive man as being "filled with a vague feeling of awe and reverence, leading to ideas of divinity, to which, in his hesitating and imperfect speech, he tried to give expression."<sup>6</sup> Therefore the process by which these nature-myths developed took place differently at each historical level. Questions continued to rise and answers were provided, and the complex mythology which resulted has grown, surviving the test of time.



A question as to the historical accuracy and reliability of mythology has been raised. The common view is that myths, while to some degree based on history, cannot be considered historical sources in themselves. While the persons of ancient myths may have actually existed, the stories about them have lost historical significance through the generations of repetition.<sup>7</sup> This is greatly due to the distortion of chronology, which is the basis of history. Commenting on this problem, Julia Lommis states: "Myth should never be considered as a sort of veiled history of a people... Without precise chronology there can be no history, since the essence of history is the relation of events in their correct sequence."<sup>8</sup> Martin P. Nilsson criticises the attempts to draw ancient history from mythology without consideration of the chronology problem. He analyses history in Greek mythology in this manner:

There are certainly historical facts underlying heroic myths to a certain extent, but mythology can never be converted into history, and we can never attain a knowledge of these historical facts if there is, not an independent historical tradition... For myths are always myths and largely fiction; the underlying facts have been reshaped and confused by fiction. For Greek myths no historical tradition exists which can serve as a control.<sup>9</sup>

Nilsson points out that the only historical backing available for the Greek myths is archaeology, which alone cannot establish the needed proof. Therefore, mythology, while historically inspired, cannot be viewed as history in and of itself.

One of the greatest questions which faces modern mythologists is that of truth and reality in ancient myths. It is difficult to determine the amount of reality which exists in such a broad and elusive field of study. Efforts to separate the factual from the fictitious create arguments that cannot be easily resolved. Mircea Eliade argues:

Myth tells only of that which really happened, which manifested itself completely...the myth is regarded as a sacred story, and hence a "true history", because it always deals with realities. The cosmogonic myth is "true" because the existence of the World is there to prove it; the myth of the origin of death is equally true because man's mortality proves it, and so on.<sup>10</sup>

This is an extreme point of view concerning Greek mythology and is contrasted by Jane Ellen Harrison, who says: "It is, I think, through this blend of the real and the unreal that the gods and myths of the Greeks remain perennially potent in literature, while the mythical monstrosities of Egypt, Assyria, India are doomed to a sterile death."<sup>11</sup> She sees the potent combination



of truth and fable as the very life-blood of the ancient Greek myths. The array of events in these tales is too diverse to be considered totally factual. The tradition from which they come allows for a great deal of embellishment and distortion as the stories filter through generations. It is clear that Greek mythology is a combination of elements that cannot be strictly categorized.

One of the original theories as to the development of ancient Greek mythology involves mere distortion and filtering of the language itself through many generations of oral repetition. Andrew Lang defines this method of comparative mythology as follows:

That method is based on the belief that myths are the result of a disease of language, as the pearl is the result of a disease of the oyster. It is argued that men at some period, or periods, spoke in a singular style of coloured and concrete language, and that their children retained the phrases of this language after losing hold of the original meaning. The consequence was the growth of myths about supposed persons, whose names had originally been mere 'appellations'.<sup>12</sup>

This theory has met with a great deal of criticism. It is too easy. A subject with a background as vast as Greek mythology cannot be accredited to one such narrow point. There has to be more involved developments than this. A thing of the enormity of both volume and meaning as Greek mythology has to originate from something more than mere mistakes and misunderstandings. This effect of language distortion must not be completely overlooked in the study of myth, however, for there is certainly some value to the theory. Changes in language did cause changes in the ancient tales. But at the same time, it seems impossible to lump the whole of mythology into a mass and classify it as solely the result of a quirk in the language. Mythology could not have survived this long if it were not based on a more fundamental meaning and significance than this.

The question of mythology's role in religion has been one of great controversy. Just how much of the Greek religion is based on mythology has been a matter of great concern. The Greeks related to their many gods in a very personal manner. Their gods were simply super-human beings who normally did not possess any great mystical powers. They were fallible as are humans, and like humans, they lacked perfect judgment. The stories about these gods thus show the Greeks relating to their deities in a much closer manner than people dare attempt to relate to a supreme being today. This leads many researchers of mythology to look upon the tales as divine. They are seen as a true and valid part of the religion of these people describing their relationship with their gods. Gilbert Murray argues for the divinity of mythology by saying:



That the myths are divine can be seen from those who have used them. Myths have been used by inspired poets, by the best of philosophers, by those who established the mysteries, and by the Gods themselves in oracles. But why the myths are divine it is the duty of Philosophy to inquire...

Now the myths represent the Gods themselves and the goodness of the Gods - subject always to the distinction of the speakable and the unspeakable, the revealed and the unrevealed, that which is clear and that which is hidden: Since, just as the Gods have made the goods of sense common to all, but those of intellect only to the wise, so the myths state the existence of Gods to all, but who and what they are only to those who can understand.<sup>13</sup>

Note that Murray does not personify the myths but does show a representation of the gods in myth. He also sees myth as a background for study of the gods - a revealing description of them, which is divine in nature. This is a strong view toward the divinity of mythology and puts a great burden on these stories to provide the evidence to support this belief. This theory must be examined with careful scrutiny to determine the theological significance of Greek mythology. But it is evident that, at some point in the study of Greek myth, the tales must be analyzed in their relation to the gods they portray.

In continuing his discussion of mythology and its relationship with the gods, Murray divides myth into five species:

Of myths some are theological, some physical, some psychic, and again some material, and some mixed from these last two. The theological are those myths which use no bodily form but contemplate the very essences of the Gods...

Myths may be regarded physically when they express the activities of the Gods in the world...

The psychic way is to regard the activities of the Soul itself: the Soul's acts of thought, though they pass on to other objects, nevertheless remain inside their begetters.

The material...believing material objects actually to be Gods, and so calling them...

The mixed kind of myth may be seen in many instances: for example they say that in a banquet of the Gods Discord threw down a golden apple; the goddesses contended for it.<sup>14</sup>

The story which pursues is of this mixed version. Murray points to the theological myths, saying they are suited to philosophers. In the same respect, he delegates the physical and the psychic stories to the poets and leaves the mixture of the psychic



and the material to religious initiations.<sup>15</sup> The problem which now arises is dividing and categorizing the tales which by the complexity of their structure and the confusion of their origin defy being pigeonholed. While this provides a useful and efficient manner to study mythology, it cannot be viewed as anything more than a framework. The myths cannot be torn one from another and categorized separately. They are much too tightly interwoven to do this effectively. A guideline such as this is beneficial, however, in organizing the stories in a logical and meaningful manner for analyzation.

One must not make the mistake of assuming Greek mythology to be the creation of the poets who finally recorded it. To contribute the entirety of this vast literary tradition to a handful of individuals would only serve to destroy the concept of the primitive Greek populace as a whole. The poets served more to mold the ancient tales into their finished form than to create myths of their own. They are the innovators rather than the inventors. The origination of mythology cannot be contributed to any specific group of people. H. J. Rose states that "myths are not the result of the artistic activity of poets, but something far older."<sup>16</sup> This must be constantly borne in mind when analyzing Greek mythology. Martin P. Nilsson elaborates on the role of the poets in the history of mythology by commenting:

The great tragic poets reshaped the myths and left their imprint upon them, so that the forms in which the myths are commonly known nowadays often have been given them by tragedy. Similarly, before the tragic poets, the choric lyric poets reshaped them. The cyclical epics also are thought to have exercised a profound influence upon the remodeling of the myths. In Homer we find many well-known myths, often in forms differing, however, from those in which they are related later.<sup>17</sup>

So, while the ancient poets are a major influence in adapting myth and recording it in its finished form, they must never be considered the authors of this vast number of tales. Nilsson summarizes by stating that "the glory and fame of ancient poets depended not, like that of modern poets, on their invention of something quite new and original, but rather on their presentation of the old traditional material in new and original fashion."<sup>18</sup> Thus, the role of the Greek poets is vital in establishing and protecting the preservation of early mythology but is by no means the source of its origin.

The question now arises concerning the sources used by these poets in creating the written form of mythology. The Homeric question is of vital significance here, for not only is the source for recorded mythology vague, but also the absolute information about the persons who recorded it. The long-standing



oral tradition from which Greek mythology grew provides the background for the tales as they were written, but this oral tradition in itself has no firm base to which the mythologist can grasp for a beginning point. The fallibility of men and of their language make difficult the research of mythology prior to the time that it was first recorded. The frustration exists in that, in the very part of the mythological evolution which is most vital to understanding the tales, the greatest void in knowledge is to be found. This is the fundamental reason that can be seen for the growth of the many diverse theories as to the origin of mythology. Nilsson generalizes a theory about Greek mythology which states that the poets "took over and utilized the old store of myths, remodeling them, sometimes profoundly. This is the case with epic poetry in countries where our knowledge of its development is fuller than is our knowledge of the development of the Greek epics."<sup>19</sup> Therefore, a vast, unstructured mass of stories from which the poets selected, edited, and revised seems to be the background for recorded mythology. To attempt to be specific about the origin of the stories themselves taken as a whole would only lead to pure conjecture, and this would only serve to add further confusion to an already admittedly cloudy issue. Myth is of too many different ages and backgrounds to be successfully analyzed as a lump sum.

While mythology is obviously older than the poets who recorded it, it was still very unstable and susceptible to change at this time. It is therefore the theory of many that, while the early epic poets were not the originators of the stories, they were responsible for a great deal of expansion of the ancient tales. It is characteristic of man, and especially poets, to embellish and magnify reality for solely artistic purposes. In this light, some of the greatest changes in the original myths may have occurred at the very point of their recording. Nilsson, while not wholly in accordance with this theory in his personal views expressed in The Mycenaean Origin of Greek Mythology, describes it in the following manner:

...elements (of myths) were brought into connection with one another and composed so as to form more complex myths through the agency of poetry. From this process a very deep-going reshaping and even creation of myths resulted. The poetry to which this creative expanding of mythology is ascribed is the epic poetry; viz., the Homeric and post-Homeric epics, the cyclical epics, and many lost epics of which we have only a scanty and fragmentary knowledge. Further, it is reasonably inferred that epics existed also before Homer and were used in composing the extant Homeric poems.<sup>20</sup>

This statement is not to compromise the fact that the poets are not the authors of the ancient myths but simply to emphasize the



powerful effect of their influence on its finished form. It is obvious that they are the ones who put mythology in its artistic form, and it would be foolish to think that they were responsible for absolutely no variations in the early stories. Therefore, this "creative expanding" of mythology can be viewed as a direct product of its fixation through permanent recording by the early poets.

While mythology may have originally existed in the form of individual stories to a great extent independent of one another, these stories have mixed and mingled until they form a very complex and often quite confusing conglomerate. The stories build upon each other, each centering around much the same figures whose personality traits become vital elements in the meaning and significance of the myth. The intertwining of these ancient myths has made attempts of individual study fruitful, if not impossible. Grouping of myths with many of the same general characteristics for evaluation purposes has proven to be more successful. But the question still remains as to how the stories became so closely knit and dependent. One theory is presented by K. O. Muller and related by Nilsson. This involves a mixing of peoples which ultimately brought about a mixing of myths. Nilsson summarizes the theory by saying: "The leading idea is that the myths were transferred to other regions with the wanderings of the tribes and that, as the tribes met and mixed, their myths met and were fused."<sup>21</sup> This is, however, inadequate by itself. Another most vital factor that must also be taken into consideration is the thought of these ancient peoples - the mind of man. All men ask the same questions about their existence and the existence of things around them. Likewise human experiences, while variable with surroundings, follow similar basic patterns. Mythology finds its roots in these things that are basic to man. Thus, it is not difficult to see how myths, as they grew drew together rather than drifted apart; they attracted rather than repelled each other. This is a major cause for the entanglement of the stories and the complexity in Greek mythology. Though the stories may be of many origins, they draw from the same pool of human thought.

Greek mythology has been the subject of an endless number of studies. Each one seems to present and analyze the ancient tales in a different manner. Why has mythology created such an academic stir? For much the same reason that it came into existence in the first place: the questioning nature of man. Today man still has an insatiable desire to explain that which is not clear to him. Because Greek mythology can be interpreted in so many different ways, due to the inconsistencies found in its structure, it has given rise to a vast amount of study. Andrew Lang describes the reason for this research by saying:

Men's attention would never have been surprised into the perpetual study and questioning of mythology if it had been intelligible and dignified, and



if its report had been in accordance with the reason of civilised and cultivated races. What mythologists wish to discover is the origin of the countless disgusting, amazing, and incongruous legends which occur in the myths of all known peoples.<sup>22</sup>

He evidences the frustration which exists on the part of all persons who study mythology in not being able to better understand the complete reasons for the development of these ancient tales. They will certainly continue to be the subject of study and analysis as man constantly probes for an understanding of his past.

A great debt is owed to Greek mythology. It has had notable influence in many varied areas of life for thousands of years. What greater testimonial could be given to an art form than this type of unequaled effect and influence? Religion, philosophy, poetry, drama, and art - all bear the distinctive mark left by early mythology. H. J. Rose saw myths as the primitive form of thought which, through further development, yielded both art and science.<sup>23</sup> This could no better illustrate the diversity of the values gained from ancient Greek mythology. Jane Ellen Harrison credits the ancient tales with a two-fold value by saying, "We owe to Greek mythology, first, the heritage of a matchless imagery, in imagery which has haunted the minds of poets and artists down to the present day, second, a thing, as we shall see, intimately connected with this imagery, the release of the human spirit in part at least from the baneful obsession of fear."<sup>24</sup> With the creation of understanding, fear is resolved. This has applied to every generation of man since the primitive Greeks. Their contribution through mythology in this respect cannot be overlooked.

Ancient Greek mythology cannot be viewed as dead or outdated today. How could something that has survived the unscrupulous trials of thousands of years and provoked as much study as this early mythology be considered without significance in any age? It is not dead and will never die. It has always and always will influence many different aspects of human life in various manners. It has been established that myth cannot be neatly labeled and filed away in a concise, understandable package. This is because there can be no beginning or ending point attached to Greek mythology. This thought is summarized by Julia Wolfe Loomis who says that "Myth cannot be dated; it is universal, transcending history. It is the summation of wisdom of a people gained from past events and rituals, given permanent form by the imagination of poets who could thus transmit themes and beliefs already in existence to posterity."<sup>25</sup> This opens the field of mythology to all types of investigation and interpretation. Mircea Eliade states, "Myth is an extremely complex cultural reality, which can be approached and interpreted from various and complementary viewpoints."<sup>26</sup> Concerning mythology,



these various viewpoints have always existed and will continue to exist. As mentioned earlier, if myth was easily interpreted and understood, its influence would be markedly less. It might even have died a very quiet, unnoticed death centuries ago had it not been the basis of so much human thought. Mircea Eliade quotes Bronislaw Malinowski concerning the functioning of myth in primitive societies:

...it (myth) expresses, enhances, and codifies belief; it safeguards and enforces morality; it vouches for the efficiency of ritual and contains practical rules for the guidance of man. Myth is thus a vital ingredient of human civilisation; it is not an idle tale, but a hard-worked active force; it is not an intellectual explanation or an artistic imagery, but a pragmatic charter of primitive faith and moral wisdom... These stories...are to the natives a statement of a primeval, greater, and more relevant reality, by which the present life, fates and activities of mankind are determined, the knowledge of which supplies man with the motive for ritual and moral actions, as well as with indications as to how to perform them.<sup>27</sup>

It is no wonder that ancient Greek mythology has survived and prospered as a relevant social influence for four thousand years. It contains the roots of the questioning curious nature of mankind that established his species as supreme.



## FOOTNOTES

<sup>1</sup>Julia Wolfe Loomis, Mythology (New York: Simon & Schuster, Inc., 1965), p. 147.

<sup>2</sup>Martin Persson Nilsson, The Mycenaean Origin of Greek Mythology (Berkeley, California: University of California Press, 1932), p. 1.

<sup>3</sup>Ibid.

<sup>4</sup>Edward E. Barthell, Jr., Gods and Goddesses of Ancient Greece (Coral Gables, Florida: University of Miami Press, 1971), p. 6.

<sup>5</sup>Henry I. Christ, Myths and Folklore (New York: Oxford Book Company, Inc., 1952), p. 6.

<sup>6</sup>H. J. Rose, A Handbook of Greek Mythology (New York: E. P. Dutton & Co., Inc., 1959), pp. 6-8.

<sup>7</sup>Thomas Bulfinch, Bulfinch's Mythology; The Age of Fable (Garden City, New York: Nelson Doubleday, Inc., 1968), p. 309.

<sup>8</sup>Loomis, Mythology, p. 9.

<sup>9</sup>Nilsson, The Mycenian Origin of Greek Mythology, p. 31.

<sup>10</sup>Mircea Eliade, Myth and Reality, Translated by Willard R. Trask.. (New York: Harper & Row, Publishers, Incorporated, 1963), p. 6.

<sup>11</sup>Jane Ellen Harrison, Mythology (New York: Cooper Square Publishers, Inc., 1963), p. 144.

<sup>12</sup>Andrew Lang, Custom and Myth (New York: AMS Press, Inc., 1968), p. 1.

<sup>13</sup>Gilbert Murray, Five Stages of Greek Religion (New York: Columbia University Press, 1925), pp. 242-243.

<sup>14</sup>Ibid, pp. 243-245.

<sup>15</sup>Ibid, p. 245.

<sup>16</sup>Rose, Greek Mythology, p. 3.

<sup>17</sup>Nilsson, Origin of Greek Mythology, p. 1.

<sup>18</sup>Ibid, p. 2.



<sup>19</sup>Ibid, p. 10.

<sup>20</sup>Ibid, p. 5.

<sup>21</sup>Ibid, p. 8.

<sup>22</sup>Lang, Custom and Myth, p. 197.

<sup>23</sup>Rose, Greek Mythology, p. 12.

<sup>24</sup>Harrison, Mythology, p. 142.

<sup>25</sup>Loomis, Mythology, p. 9.

<sup>26</sup>Eliade, Myth and Reality, p. 5.

<sup>27</sup>Ibid, p. 20.



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ACUPUNCTURE: THE ORIENT'S MOST  
FASCINATING MYSTERY

by  
Carol Moisan

Acupuncture, originating in China about 5000 years ago, is thought to be the oldest form of healing known to mankind. The first written account of acupuncture was around 400 B. C. According to ancient Chinese lore, a soldier, after being pierced by an arrow, found sudden relief from chronic pain in another part of his body.<sup>1</sup>

The basis of acupuncture lies in ancient Chinese philosophy. Chinese medicine is tied with the understanding of life and creation.

"The art of healing was part of philosophy and religion, both of which advocated oneness with nature and the universe; and the man of medicine had to study and understand the ancient Chinese philosophy containing the three basic ideas common to all Chinese culture - the Tao (the way), Yang and Yin, and the five elements. He had to concern himself with all such matters, as well as anatomy and physiology, if he were to gain wisdom and understanding in his science."<sup>2</sup>

The purpose of acupuncture is to heal and diminish pain by balancing the body's negative (yin) and positive (yang) life forces. The body's internal organs are divided between yin and yang - for example, the heart, lungs, liver, spleen, and kidneys are yin; the stomach, large and small intestines, urinary bladder, and gallbladder are yang. Yin represents the passive storage group and yang the active working group. The life force (often referred to as the spirit of life) is called Ch'i. The Ch'i flows between the yin and yang through 12 meridians or channels lying beneath the skin. They surface at several (over 300) points over the body. Ten of the meridians derive their names from the body organs and two from anatomically undefined parts: the triple warmer (three-heater) and the circulatory-sex organ. These channels do not correspond to any medically known body network such as the bloodstream or nervous system. According to the Chinese, the three-heater is responsible for maintaining even temperature in the upper, middle, and lower divisions of the body and for maintaining harmony in the temperature of the three divisions. This has a tremendous effect on mental and physical disorders. The circulation-sex controls the arterial and venous blood and internal and external sexual secretions. This is very important in mental disorders.<sup>3</sup>

The fundamental principle in acupuncture is to treat the body and mind as a whole and not just symptoms or named diseases.



The purpose is to look for the cause and not the manifestation. The healthy body has all the drugs it needs to fight disease, repair damage and keep itself fit. All sickness is a result of a function or organ. Acupuncture will restore the body's ability to produce the necessary enzymes and secretions, and bring energy to the disfunctioning area.<sup>4</sup>

Diagnosis is not only the hardest but also the most important part of acupuncture. The four most common methods of diagnosis are as follows:

(1) Asking - The practitioner asks about the patient's background, personal troubles, and medical history.

(2) Hearing - The practitioner not only listens to what the patient is saying but also to the sound of his voice.

(3) Seeing - He observes mechanical defects, color of the face and skin, posture, and mannerisms.

(4) Feeling - The practitioner judges the texture of the skin, variation in temperature of skin surfaces, and also feels Chinese pulses to find the vital energy flowing to different organs. There are 12 different pulses in the wrists with six on the left wrist (yin) and six on the right wrist (yang). Reading of the pulse is the most vital part of diagnosis and recording progress of treatments.<sup>5</sup>

The three aims to keep in mind when treating the patient are:

(1) To treat the patient as a whole. "This means he must consider the physical body and the mind together as one unity and he must consider unity as a part of the whole creation, having its own unique relationship with its environment."<sup>6</sup>

(2) To seek the cause of disease. "It is important that he should not concern himself with the complaint itself, for this is only a symptom of disease in the body. He must always try to find the reason for this disease."<sup>7</sup>

(3) To find the cause. "Having found the cause, attempt to remove the once troubled spot by putting it right at the root. The symptoms of the disease will disappear themselves."<sup>8</sup>

The use of needles was introduced at about the same time as the first writings (400 B. C.) The needles used now are usually solid stainless steel not much thicker than a hair. It is important that the needles be pliable, impossible to break, and able to bend if need be. Needles are made throughout the world, however, many still use handmade needles from China. Over the years, needles have been made out of stone, gold, silver



or bronze. They vary in length from one-half inch to four inches and are used according to the effect that the doctor wants to achieve. Most needles are inserted just below the surface of the skin but some may go from one-fourth inch to as much as three inches. The most frequently used points are in the lower legs, feet, forearms and hands. The needles may or may not be manipulated depending on the desired effect.<sup>9</sup>

The needles are always sterilized before insertion. The insertion of the needle does not hurt. Sometimes there is a slight sensation of heat or numbness or a sharp prick. It is said to be less painful than if someone accidentally sticks a needle or pin in their hand. The insertion of the acupuncture needle does not compare to a western injection. The pain does not increase for deeper injections. Generally there is no bleeding from either the insertion or the withdrawal of the needles.<sup>10</sup>

Practitioners believe they can observe Ch'i's energy by watching the tension in the needles. The needle stays in until the balance is reached in energy then sometimes the needles fall out themselves when the correct tension is restored. Sometimes no needles are used. Instead they use a special massage with heat on the acupuncture points. This is usually considered a form of Chinese osteopathy. Heat is applied by a tiny cone of moxa placed on the skin and ignited. Moxa is made from the herb "artemisia vulgaris latiflora"<sup>11</sup> and is like brown colored wool. There is always some precaution taken so that the skin is never burned. Moxa is removed when the patient feels sufficient heat. Moxa sticks from  $3/4$ " to  $1\frac{1}{2}$ " in diameter are used by passing over the point to create heat or moxa in the form of a small ball can be placed on the head of special needles and ignited to create heat. The way moxa is used depends on the desired effect of the treatment.<sup>12</sup>

The average time involved in the initial consultation ranges from one to two hours. The practitioner does not try to put labels on diseases. Often they prefer to spend some time studying case histories and their own notes before starting treatment. The average time for the treatment is approximately one-half hour. The pulses are always read to check the progress before starting. Frequency of treatments usually begins with two or three treatments per week for a period of three to four weeks then tapers off to once a week then once a month. Treatments are usually given lying down but the patient can be treated sitting up.<sup>13</sup>

The cost for treatments varies but is roughly in line with the cost charged by medical doctors. There is no age limit on patients but they do not usually treat patients under seven years of age. Since the practitioner is more concerned with the cause, much emphasis is placed on preventive medicine such as a correct diet, exercise, etc. The diet consists of pure food and it is recommended not to use preservatives or unnatural foods.



In 1960 a Russian medical research team attempted to disprove acupuncture and ended up so impressed that they arranged for acupuncture training at six of their leading universities. However, research was conducted in this area much earlier (1939) by two Russian doctors, S. D. and V. Kirlian. They photographed a living substance in high frequency electrical fields. They discovered some energy was constantly moving which showed up as lights, sparks, flares, and channels of light. These were photographed from people as well as plants. After 13 years of experiments, they found both energy bodies and physical bodies in plants and animals. The energy body is affected by emotion, states of mind, thoughts, alcohol, and illness and pain. They found when a person was more tired and tense, more energy poured out.<sup>14</sup>

"Except for the fact that Dr. Walter J. Kilner of St. Thomas's Hospital, London, had discovered at the beginning of this century that the human aura became visible when a person was looked at through specially stained glass screens, this was really the first time that scientists had been fully able to see and study this second energy body of a living being, and they were amazed by what was revealed under Kirlian's photography."<sup>15</sup>

In 1953 a Leningrad surgeon, Dr. M. K. Gaikin realized Kirlian's photography was visible proof to the premis of acupuncture. Flares from the hand did not correspond to nerve endings and could not be electrical energy. Also, energy from living plants substantiated this because plants have no nervous system. He also proved that the energy flares photographed were coming from the identical spots as the acupuncture spots.<sup>16</sup>

"Despite the large amount of information that was collected about this bioluminescence by the Kirlian camera, it was not until 1968 that the scientists at the Kirow State University of Kazakhstan in Alma-Ata finally made their statement that all living things, both plants and animals, have both a physical body of atoms and molecules and a counterpart energy body. They called this the biological plasma body, plasma being a fourth state of matter, masses of ionized particles - electrons, protons, and possibly others."<sup>17</sup>

This was a landmark in the progress of western scientific understanding of the ancient theory of acupuncture.

A Korean professor, Dr. Kim Bong Han, substantiated existence of meridians and how they affected the body and mind through a complex series of tests. He stated that there is an



integrated system of ducts independent of the vascular, lymphatic, blood and nervous systems called the Kyungrak system. "It is made up of four sets of ducts, all of them linked by a terminal ductules much as arteries and veins are linked by tiny blood vessels. These ducts are the meridians of acupuncture."<sup>18</sup> His research team injected radioisotopes into an acupoint and was able to watch the flow of meridian fluid. These resulted in radiophotographic plates that actually reveal paths of meridians through the body. The team found an important constituent of the fluid which they named Sanal. They described Sanal as a unique type of granule that contained DNA, RNA, and protein. They believe Sanal is involved in the formation of cells and fuses into the cell from the meridian fluid and then later breaks down and recirculates as Sanal.<sup>19</sup>

"All of Professor Kim Bong Han's work, although extremely complex and detailed, can be looked at very simply. He is explaining in biochemical terms exactly how it is that the Kyungrak system of ducts - the acupuncture's network of meridians - plays so vital a part in the smooth functioning of the organs of the body, and consequently affects the condition of the whole physical body. The practitioner of acupuncture is going straight to a controlling power when he treats a patient through his network of meridians in the body."<sup>20</sup>

These experiments are especially appealing to the western mind because the basis of our culture dictates the need of proof before believing in something of this nature.

The main differences between the doctor of acupuncture and the western doctor is that the western doctor must have proof and does not believe in the existence of meridians (energy pathways) and believes the success of acupuncture is due to the power of suggestion. The Chinese doctors believe the western doctor is more concerned with treating the symptoms of disease and naming the disease rather than correcting the cause or malfunction. The western doctor believes in treating the body and mind separately whereas the Chinese doctor believes in treating the body and mind as a whole. The western doctor also has learned much about medicine by dissecting the dead whereas the Chinese doctor does not believe this helps because the life's vital forces are gone and they are the controlling power over the body.

The person most responsible for what is called the acupuncture vogue in America is James Resten, New York Times columnist, who came down with appendicitis upon arriving in Peking. Although there are conflicting stories in magazines about what happened, the most consistent is that he had his appendix removed conventionally in surgery but had post-surgical acupuncture. His articles made acupuncture a household word and increased the desire in America to learn more about it.<sup>21</sup>



For Americans, it began less than two years ago when President Nixon's trip to China established a pipeline for information about one of the Orient's most fascinating mysteries: acupuncture. Since President Nixon's visit, scores of U. S. diplomats, doctors, and journalists have returned from China with stories of acupuncture operations they had witnessed. After Resten's testimonial, several well-known personalities such as Alabama Governor George Wallace and San Francisco Giants star hitter Willie McCovey turned to acupuncture for help.<sup>22</sup> American medicine initiated vigorous investigations in an effort to learn more about the ancient art. The four main areas of interest and research in America have been in deafness, narcotics withdrawal, chronic pain, and anesthesia.

The relief of chronic pain is probably the major goal of Americans seeking acupuncture, however, the most promising aspect lies in the area of surgical anesthetics. Acupuncture anesthetics appears to be free of many of the hazards of general anesthesia such as the death risk in heart patients, post-operative nausea, and allergies connected with general anesthesia. Even in China, acupuncture anesthesia only started in the 1950's and in the United States the start has been slow but impressive.

U. S. researchers generally dismiss the traditional explanation of the yin and yang but do admit that it really works. Dr. Louise Wensel, head of the Washington Acupuncture Center, started one of the first American training programs in acupuncture specifically for American physicians. She believes that neither western medicine nor acupuncture are complete in themselves and that the two should work together. She also believes acupuncture should be used after a complete diagnostic workup according to western standards and only where American medicine will not work.<sup>23</sup>

There are two major studies currently in the United States trying to prove or disprove acupuncture. One is under way at the Massachusetts General Hospital which says it will need several months to accomplish anything and the other is the National Institutes of Health (NIH) in Bethesda, Maryland, which is a three-year study.<sup>24</sup>

It is the general consensus of many western doctors working with acupuncture to proceed with caution and that some sort of American board should be established to pass on the credentials of practitioners. The general public needs to be protected from "quackupuncture". Generally Americans do not believe that all there is to it is hypnosis or it would not work on animals.

"We have to treat acupuncture like any other new drug or procedure in this country and find out if it is better than, as good as, or inferior to what we're already using."<sup>25</sup> This quotation would be a good summation of the general feeling of American doctors at the present time. However, with the strides in medicine within the most recent years, we may find a new theory in



medicine with the best combination of western medicine and acupuncture. I do believe that with supporting research data and with the countless testimonials of Americans, we can no longer look on acupuncture as a myth in Chinese folklore and have to give it serious consideration.



## FOOTNOTES

<sup>1</sup>Peter Gwynne, "Acupuncture Update", Today's Health (January, 1974), Vol. 52, p. 16.

<sup>2</sup>J. R. Worsley, Is Acupuncture For You? (Harper & Row Publishers, New York, 1973, p. 34.

<sup>3</sup>Ibid, p. 15.

<sup>4</sup>Ibid., p. 21.

<sup>5</sup>Ibid., p. 15.

<sup>6</sup>Ibid., p. 19.

<sup>7</sup>Ibid.

<sup>8</sup>Ibid.

<sup>9</sup>Ibid.

<sup>10</sup>Peter Gwynne, p. 66.

<sup>11</sup>J. R. Worsley, p. 29.

<sup>12</sup>Charles Fox, "Acupuncture - Cure from the East", True (Feb. 1973) Vol. 54, No. 429, p. 35.

<sup>13</sup>J. R. Worsley, p. 34.

<sup>14</sup>Sheila Ostrander and Lynn Schroeder, Psychic Discoveries Behind The Iron Curtain (Bantam Books, New York, 1971).

<sup>15</sup>Ibid.

<sup>16</sup>"Soviet and Korean Research Substantiating Acupuncture", Galaxies of Life (Gordon and Breach, New York, 1973).

<sup>17</sup>Ibid.

<sup>18</sup>Ibid.

<sup>19</sup>Ibid.

<sup>20</sup>Academy of Medical Sciences, Journal of D.P.R.K. (Pyongyang, Korea, Medical Science Press, 1965).

<sup>21</sup>"Acupuncture - Myth or Miracle", Newsweek (August 1972) Vol. 80, pp. 48-50.



<sup>22</sup>Peter Gwynne, p. 19.

<sup>23</sup>"Focus on Dr. Louise Wensel - And on Needles and Pains",  
Harper's Bazaar (Nov. 1973), Vol. 3144, p. 102.

<sup>24</sup>Peter Gwynne, p. 66.

<sup>25</sup>Peter Gwynne, p. 66.



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REFLECTIONS: AFTER HAVING PASSED THROUGH ENGLISH 390 -  
MASTERPIECES IN AMERICAN LITERATURE

by  
Bob Hesch

My favorite author? To select just one is a bit like seeing the dog in Canis Major. Allow me to borrow a technique from Whitman and Frost: telling who it is not. It is certainly not Poe, who provides tightly structured escape fiction, built around confining rules. Nor is it Thoreau or Emerson, masters of philosophical essays, but rather dry in their intellectual presentation. It could be Melville, an artist of mental depiction, but like Faulkner, too apt to become distracted. It might be James, spokesman for the aristocrat, but he concentrates on humanistic ideals, well above the realm of realism. Could it be Hawthorne? He is a fine creator of mental conflict; however he floats above realism with diverted fantasy and divine intervention. The poets, all of whom are fine artists, lack a medium conducive to a permanent effect. Who then; Twain or Hemingway? Forgive me, Mr. Clemens, and all the above mentioned artists. You've lost by only half the distance between the smallest measurement. My partially cultivated tastes find an affinity in Hemingway's simplicity. If you are Tom, Mr. Twain, an idealistic adventurer; Hemingway is Huck, the practical realist. Hemingway achieves greatness by removing all but the bare necessities, creating beauty through simplicity.

This simplistic beauty is probably most evident in Hemingway's style. He attempts to write the minimum amount of words to convey exactly what he means to convey. Heavy with Anglo-Saxon words, his vocabulary is basically simple. His sentences are either simple, or short compounds. He uses an abundance of dialogue as exemplified in Hills Like White Elephants, composed entirely of dialogue except for a short introductory paragraph. His use of short, simple sentences is demonstrated in the following excerpt from The Snows of Kilimanjaro.

I don't quarrel. I never want to quarrel. Let's not quarrel any more.

Further: .

Don't be silly. I'm dying now. Ask those bastards.

His use of foreign phrases and also further evidence of this simplicity is in the dialogue of A Clean Well-Lighted Place.

What's yours.

Nada.

Otro Loco mas.

A little cup.



(It might be noted that nada was repeated at least twenty times in this short story.) This is far from a thorough explication of Hemingway's style, but the examples show his use of simplicity. The intended meaning was not bogged down by parenthetical phrases or other qualifiers, by complex sentence structure or a complex vocabulary. He brought true feeling from his head, through his pen, to the paper. And after all, Miss Dickenson, isn't truth beauty?

Plot in the Hemingway tale is also simple. Santiago, in The Old Man and the Sea, has had no luck fishing for 84 days. He decides to go all out in an attempt to change his luck. He meets conflict in the sea, returns from the sea, and resolves to return to the sea again. Francis Macomber (The Short Happy Life of Francis Macomber) seeks not to change his luck, but to find his courage. Francis shoots an impala, runs from a lion, stands up to a charging buffalo. Although greatly condensed, this summation shows how simple Hemingway plots are.

The structure of Hemingway's plots are equally simple. In each of his tales the reader is introduced to the characters, and allowed to follow them through a chronological sequence of events. Usually there is only one, or a few related episodes, involving a conflict followed by a short epilogue. The structure is like the sentences Hemingway uses. It contains only a beginning, a middle, and an end. (If this statement seems too trite, try stating a Faulkner plot without getting involved in an intricate analysis of structure.) Simplicity of structure, then, allows the reader to follow the flow of events rather than computing where the story's characters are in time.

No human character is simple, but some authors would have the reader believe that even unconscious thoughts are the focus of human attention. Hemingway strips away the subconscious thoughts of his characters laying true emotion open to the reader. Contrasted with Faulkner, the difference in effect becomes evident. The following are examples of how each author depicts what drink means to their story's characters. The first example is from Faulkner's The Bear; the second from Hemingway's The Old Man and the Sea.

- 1) There was always a bottle present, so that it would seem to him that those fine fierce instants of heart and brain and courage and williness and speed were concentrated and distilled into that brown liquor which not women, not boys and children, but only hunters drank, drinking not of the blood they spilled but some condensation of the wild immortal spirit, drinking it moderately, humbly even, not with the pagan's base and baseless hope of acquiring thereby the virtues of cunning and strength and speed but in salute to them.



2) He sent two beers.

I like the beer in cans best.

I know. But this is in bottles, Hatuey beer,  
and I take back the bottles.

Faulkner reveals a stream of thoughts, while Hemingway reveals the simple, matter of fact statements of his characters. Isaac (from the first example) is revealed as a complex character; Santiago shows he is a simple man. If a character from a Faulkner tale gets hungry, he will probably first explain that he's not sure when he first felt the faint feeling deep within himself, but became aware of it only after it had existed for a time - not so much a pain as a strong drone - almost like the far off yell of hounds tracking in the wild, fading, then coming closer until he realized his body was protesting the lack of nourishment. If a character from a Hemingway tale gets hungry, he will probably say: I am hungry. But these are only examples and attempted examples. To really appreciate the simplistic beauty of Hemingway's artistry, one must read The Old Man and the Sea.

In this novelette (Hemingway's finest in my opinion) he creates humor. Unlike the satire in A Clean Well-Lighted Place, Hemingway uses the prayers Our Father, and Hail Mary to show a simple man's thoughts. Because these thoughts are familiar to most, and because they reveal man's mental laziness, they are funny. But first notice the same two prayers as they are utilized for a satiric purpose in A Clean Well-Lighted Place:

Our nada who art in nada, nada be thy name thy  
kingdom nada thy will be nada in nada as it is in  
nada. Give us this nada our daily nada and nada us  
our nada as we nada our nadas and nada us not into  
nada but deliver us from nada; pues nada. Hail  
nothing full of nothing, nothing is with thee.

In contrast, the same two prayers are pondered and recited by the old man.

He commenced to say his prayers mechanically. Sometimes he would be so tired that he could not remember the prayer and then he would say them fast so that they would come automatically. Hail Marys are easier to say than Our Fathers, he thought.

With his prayers said, and feeling much better, but suffering exactly as much, and perhaps a little more, he leaned against the wood of the bow and began, mechanically, to work the fingers of his left hand.



This is a simple, but precise perception. It is true and it is beautiful. This perception and the ability to successfully communicate it, places Hemingway half the distance between the smallest measure, in front of other American authors.

Upon reflecting about the excursion that led me to the above conclusion, I'll quote a few words from Twain's Huck Finn:

...and so there ain't nothing more to write about, and I am rotten glad of it, because if I'd 'a' knowed what a trouble it was to make a book (American Literature) I wouldn't 'a' tackled it, and ain't a-going to no more.

At least, that is, until next term.



PROGRESS REPORT ON THE  
BATTLE AGAINST CANCER

by  
Loretta Martin

In 1974 cancer will strike six out of twenty-four people. Of these six, two will be saved by treatment, one will die who could have been saved by earlier diagnosis, and three will die of types of cancer that future research must control.<sup>1</sup> As these statistics clearly show, the battle against cancer is one of great importance.

This battle against cancer began many years ago. Cancer is an ancient disease, much older than man. Evidence of cancer has been found in the bones of dinosaurs who inhabited the earth millions of years ago. Hippocrates named the disease after the crab. He is said to have thought that cancer of the breast had a crab-like appearance.<sup>2</sup>

The first known treatment of this disease was two thousand years before the birth of Christ, when Indian physicians treated cancer with a paste containing arsenic.<sup>3</sup>

Little else was accomplished in the field of cancer research between this time and the beginning of the twentieth century. At this time two discoveries were made. In 1915, a Japanese scientist, aided by a colleague, induced cancer in rabbits for the first time by dabbing the skin of the ear with coal tar every day for more than six months. Fifteen years later, Sir Ernest Kennaway and his colleagues at the Royal Cancer Hospital in London synthesized the first chemical carcinogens - substances capable of inducing cancer - and succeeded in isolating from coal tar a chemical in it which induced skin cancer: 3,4 benzpyrene.<sup>4</sup>

With these two discoveries, the modern era of cancer research officially began. From here, other discoveries were made which led to today's massive effort in the battle against cancer. Much progress is being made in the field of cancer research.

The first strong indication of progress in the field of cancer research is the significant number of discoveries being made in the area of skin, bone, and blood cancer. Cancer of the skin is virtually 100 percent curable when caught early.<sup>5</sup> This is true, of course, because cancer of the skin is easily detected, and can be treated early. Yet, 5,000 people in the United States will die this year of skin cancer.<sup>6</sup> Most skin cancer is caused by excessive exposure to the sun. Its early warning signals are a sore that doesn't heal and the change in size or color of a wart or mole. The most powerful weapon against skin cancer, however,



is prevention, which means being especially aware of overexposure to the sun.

Cancer of the bone is a relatively rare disease. Nevertheless, it is one of the more common types of cancer in children and young adults. Any malignant tumor developing in the skeletal system is known as a bone cancer. Pain, swelling, and fever are common symptoms. The physician decides whether a suspicious bone tumor is malignant on the basis of a tissue examination known as a biopsy. In this procedure, a fragment of the suspected tissue is removed surgically and examined by a pathologist.<sup>7</sup> Investigators at the North Carolina Institute have found that anti-cancer drugs, given along with irradiation, have been effective in temporarily suppressing the development of tumors in a few patients.<sup>8</sup> Scientists are also evaluating the use of fluoride compounds and considering the possibility that a virus may cause some bone cancers.<sup>9</sup>

Dr. R. A. Good and his aides at the Minnesota University, in working with cancers of the blood, have developed a resistance to certain cancers in rats and mice by reducing slightly the amount of protein in their diets. Experiments by Dr. Good show that normally fed animals developed antibodies which prevented immune cells from destroying cancerous tissues, while underfed animals produced fewer antibodies, making it easy for them to resist cancer.<sup>10</sup>

Dr. Good has done extensive research in the field of self-immunology - the study of the body's natural defenses against disease. Some evidence has indicated that cancer thrives when the immune system is defective. For example, the disease strikes hardest at the aged or very young, the two groups whose immune systems tend to be weakened. More scientific evidence is the high correlation between cancer and the so-called immunodeficiency diseases, which leave their victims unable to resist infection.<sup>11</sup>

"In order for cancer to occur and persist, there must be a failure of the immunological process," Good said. "We've never found a cancer patient in whom something wasn't screwed up immunologically."<sup>12</sup>

Doctors at Sloan-Kettering Institute, of which Dr. Good is president and director, have discovered that some cancer cells fail to produce antigens, or markers identifying them as foreign, and thus avoid the body's recognition mechanism. There is also speculation that larger cancers shed so many antigens that they simply overwhelm the immune system.<sup>13</sup>

Dr. Lloyd Old, vice president and associate director of Sloan-Kettering Institute said: "What we can do well right now is eliminate massive amounts of cells. But getting rid of 90% of a cancer, even 99%, isn't enough; if there's one cell left, it



can produce millions more cells. Immunotherapy offers a way of getting at these residual cancers and preventing them from spreading."<sup>14</sup>

Further signs of progress in the field of cancer research are the advances being made in the study of cancer of the lung and breast. Fifty years ago, lung cancer was a rare disease. Today, among American men, it is the most common cause of death from cancer. Nearly 200 persons a day in the United States die from lung cancer, compared to 200 a month in 1930.<sup>15</sup> The present treatment of surgery and radiation are usually palliative at best, seldom curative. In recent years, however, some progress has been made in the detection of lung cancer through microscopic examinations of the sputum for the presence of abnormal cells. This technique, called exfoliative cytology, has been successfully applied to the examination of uterine cells as a means of detecting cancer of the uterus at an early stage.<sup>16</sup> In other studies, scientists have shown that persons who do not smoke have the best chance of avoiding lung cancer. In 1965, Congress passed the Federal Cigarette Labeling and Advertising Act requiring manufacturers of cigarettes to print on all packages, "Caution: Cigarette smoking may be hazardous to your health."<sup>17</sup> Measures are also being taken to help clean up the air we breathe. Obviously, the optimistic aspect of lung cancer is prevention.

New advances in detection of breast cancer appear to offer great hope for the future. Due to the lack of significant reductions in the breast cancer mortality rate in the last thirty-five years, the American Cancer Society began a major national effort to make widely available screening techniques that can detect breast cancer at its earliest, most curable stage. At this stage the chances of cure are virtually 100 percent. The treatment of breast cancer, the leading cause of cancer death in women, is a combination of techniques including mammography,<sup>18</sup> special breast X-ray, thermography,<sup>19</sup> heat-sensitive photographs of the breast, and manual examination by the physician. Monthly breast self-examination is also very effective. These techniques make it possible to detect 95 percent of breast cancer cases at the curable stage.<sup>20</sup>

That progress is being made in the various fields of cancer research is shown by the new knowledge gained in connection with cancer of the uterus and prostate. The greatest progress in the field of cancer research is being made with cancer of the uterus. The mortality rate has dropped by two-thirds in the last forty years, largely because the Pap test has made early detection possible. This is significant because today more women will develop cancer of the uterus than any other type of cancer.<sup>21</sup> Dr. George Nicholas Papanicolaou, M. D. developed the Pap test. In this test, a sample of the fluid normally present in the mouth of the womb is sent to a laboratory where it is examined under a microscope by highly trained specialists. If



all women had an early Pap test there would be very few deaths from cancer of the uterine cervix.<sup>22</sup> "A cancer may lazy along in the cervix of the uterus for nine years, fourteen years, abruptly break through, spread and scatter, invade and metastasize, that is, transfer cells to an unrelated part of the body."<sup>23</sup> The importance of the Pap test can't be overemphasized, as 81 percent of uterine cancer can be cured if localized: 45 percent after it has spread.<sup>24</sup>

Cancer of the prostate is the cause of death in about 5 percent of men over fifty years of age.<sup>25</sup> An estimated 18,000 die each year in the United States. The treatment of cancer when it is confined to the prostate gland is surgical removal of the gland. Sometimes radio-therapy is added to the treatment. Recovery from prostate cancer, as from cancer of most sites, is related to the stage of the disease when treatment is begun. Survival rates have gradually increased since 1940. Today the five-year survival rate is 49 percent.<sup>26</sup>

The new findings in other fields is even more evidence that progress is being made in the field of cancer research. Much research is being conducted on cancer of the mouth. A method is being investigated where drugs are pumped through the veins of the head and neck in order to reach the affected area directly and slow the course of the disease.<sup>27</sup>

Cancer of the liver is next to the most difficult cancer to treat. Liver transplants are being considered as a future possibility. The mortality rate of liver cancers could be greatly decreased if caught early. At present, two out of three liver cases are unsuccessful. If caught early, the results would be successful in one out of two cases.<sup>28</sup>

Almost 70 percent of colon-rectum cancer can be cured if detected before it has spread: after it has spread, only 39 percent. According to the American Cancer Society, the test that could help save more lives from cancer than any other step in routine checkup is the "procto". In this examination the physician passes a lighted tube into the patient's rectum and lower intestine and examines the walls of these organs for tumors and pre-cancerous growths. About one-half of the patients with cancer of the rectum or colon die within five years. This means almost 50,000 Americans each year; yet three out of four could be saved with early treatment.<sup>29</sup> One early detection test now being evaluated may indicate colon and rectal cancers by identifying the presence of a special protein, called carcinoembryonic antigen, in the blood. If present studies prove that this antigen appears only when these cancers are present, malignant tumors of the colon and rectum may be detectable in an early presymptomatic stage.<sup>30</sup>

Cancer of the stomach is 90 percent fatal, yet its mortality rate is 50 percent less than twenty years ago. Only 10 percent of all stomach cancer cases are diagnosed before the disease



has spread. Scientists are particularly interested, therefore, in developing a means for early detection of stomach cancer. Doctors have also been anxious to find drugs which used alone or in combination with surgery would improve stomach cancer treatment. For example, a study showed that patients whose cancer appeared to have been thoroughly removed at surgery, and who had no evidence of involvement of regional lymph nodes, had significantly higher survival rates for the first three years after surgery if they received the drug, thioTEPA, than if they did not. Scientists feel that drug research results obtained so far constitute a valuable clue to successful treatment of stomach cancer.<sup>31</sup>

The leukemias cause an estimated 14,000 deaths each year. Acute leukemia is the most common form of cancer in children, but actually affects many more adults.<sup>32</sup> Recent studies have shown that combinations of several drugs have a greater ability to induce remissions than single drugs given alone. Other studies are providing information on growth characteristics of leukemic cells to determine at what stage they are most vulnerable to anticancer drugs.<sup>33</sup>

Doctors attending the international symposium on drug care of the dying at Colorado University in November 1971, determined that a role exists for the use of mind-affecting, pain-killing, and other drugs including heroin and LSD, in the care of terminally ill cancer patients. They further decided, however, that no drug could take the place of the personal medication and psychological attention needed.<sup>34</sup>

The United States government is questioning the potential cancer causing effects of NTA (a chemical used in detergents) and are urging the return to phosphates, which were replaced by NTA.<sup>35</sup>

A young Harvard surgeon, Dr. M. Judah Folkman, of Boston's Children's Hospital Medical Center, has discovered that a budding cluster of cancer cells must reach a critical crossroad before it becomes a detectable solid tumor. At this point, it could be stopped in its tracks. This may also offer a new way to treat cancer by permanently restricting malignant growths to a harmless size - though practical methods of doing so remain to be developed. Dr. Folkman's experiments have shown that to grow larger, solid tumors must obtain a blood supply. To do this, the tumors must secrete a substance called tumor angiogenesis factor (TAF). Dr. Folkman suggests, also, that a vaccine might be developed that would induce the production of antibodies that would block TAF and render it unable to stimulate further blood-vessel growth. Immunization against TAF might prevent further cancers from developing in other parts of the body. After the initial tumor had been removed surgically or destroyed by radiation. "It is entirely possible," Dr. Folkman remarked, "that the



next decade of tumor management will be known as the age of the invisible tumor."<sup>36</sup>

Dr. David G. Jose is a participant in an immunological research program at the Royal Children's Hospital in Melbourne, Australia, has pointed out that malnourished people suffer less frequently from cancer. They suffer more often and more severely from infectious diseases. The reason for this may lie in the field of immunology. It could be that "As the body starves, so starves the tumor." An experiment conducted with a strain of mice in which 95 of every 100 could be depended on to develop mammary cancer resulted in only 5 of the 100 developing cancer when the amount of protein in their diet was severely curtailed. Decreases in tumor incidence could be produced by diets deficient in calories, in protein, or in selected essential amino-acids.<sup>37</sup>

The battle against cancer has come a long way since the Japanese scientist first induced cancer in rabbits. Even as recently as the last thirty years doctors have progressed from saving one in five cancer patients to saving one in three.<sup>38</sup> At least thirty-three of the forty-three elements which can be combined to combat cancer are in use at the moment in the treatment of almost a dozen forms of cancer.<sup>39</sup> Several tactics are being employed in the battle against cancer. (1) From what we have learned about the causes of cancer, it appears that if we take the right precautions, certain forms of cancer need not appear; or at least their incidence could be greatly reduced.<sup>40</sup> As Dr. R. Lee Clark, recently named by President Nixon to the three-member presidential panel on cancer, remarked, "The long-range goal, ...will be to determine the cause and prevention of cancer."<sup>41</sup> (2) A knowledge of the seven warning signals of cancer is another significant aid in the battle against cancer. The seven warning signals are:

1. Change in bowel or bladder habits
2. A sore that does not heal
3. Unusual bleeding or discharge
4. Thickening or lump in breast or elsewhere
5. Indigestion or difficulty in swallowing
6. Obvious change in wart or mole
7. Nagging cough or hoarseness.<sup>42</sup>

(3) An annual checkup is another aid in combating cancer. Half of all cancers develop in areas of the body easy to examine. An annual checkup is the first key in the detection of cancer, yet only 25 percent of all men and 41 percent of all women get annual checkups.<sup>43</sup> (4) When cancer is detected, however, the prospect is still bright. The prospect is bright if the correct treatment follows, and follows immediately. No matter how appealing "home remedies" or "secret" cures may seem - only a physician can give dependable advice. A specialist is able to keep up with the



advances in the cancer field and can determine if the patient would benefit more from standard treatment or if a new, experimental treatment is indicated. He can recommend the medical center equipped to provide the best services. The 1971 Cancer Act, authorizing spending of \$1.6-million over the next three years for expanded research on cancer, calls for the establishment of fifteen new specialized centers raising the national total to twenty-one.<sup>44</sup> The 1972 Health, Education, and Welfare Department appropriation bill authorized \$337-million for cancer research programs administered by the National Cancer Institute with funds being distributed through grants and loans for nongovernment research programs.<sup>45</sup> United States Health, Education, and Welfare Department Secretary Richardson and Soviet Ambassador Dobrynin began in March of 1972 to pool research efforts in the fight against cancer, heart disease, and environmental health problems in areas where interests converge.<sup>46</sup> However, new cancer centers, better financing programs, and combined research efforts aren't all the answers. Time is needed. The cancer researchers still have a lot to do. They have many years of work ahead of them - maybe even, as Sir Ernest Kennaway predicted in 1930, two hundred and fifty.<sup>47</sup> No one can tell for certain. Progress is being made each day through new discoveries in skin, bone, blood, breast, lung, uterus, prostate, and all the other fields of cancer research. While a cure for cancer isn't right around the corner, many significant advances are taking place in prevention, detection, and treatment. Day by day the war against mankind's most dreaded disease is being won.



## FOOTNOTES

<sup>1</sup>American Cancer Society, 1969 Cancer Facts and Figures, (1968), p. 12.

<sup>2</sup>Bernard Glemser, Man Against Cancer (New York, 1969), p. 103.

<sup>3</sup>Glemser, p. 30.

<sup>4</sup>Glemser, p. 31.

<sup>5</sup>Paul Neimark, "Progress Report in the Battle Against Cancer," Today's Health, (July, 1972), 42-45.

<sup>6</sup>American Cancer Society, Sense in the Sun, (1970), p. 2.

<sup>7</sup>American Cancer Society, Cancer of the Bone, (1970), pp. 1-2.

<sup>8</sup>Cancer of the Bone, p. 4.

<sup>9</sup>Cancer of the Bone, p. 5.

<sup>10</sup>Benno C. Schmidt, "Conquest of Cancer Needs Independent Leadership", The New York Times, CXXI (October 1971), p. 32

<sup>11</sup>Andrea Chambers and Peter Stoler, "Toward Cancer Control", Time, (March 19, 1973), 64-69.

<sup>12</sup>Time, p. 65.

<sup>13</sup>Time, p. 65.

<sup>14</sup>Time, p. 66.

<sup>15</sup>Neimark.

<sup>16</sup>National Institutes of Health, Cancer of the Lung, (1970), p. 7.

<sup>17</sup>Cancer of the Lung, p. 9.

<sup>18</sup>Mammography is the technique for detecting cancer of the breast by X-ray. This method may find cancer before it grows large enough to be felt by the patient or her physician.

<sup>19</sup>Thermography is the mapping of areas of increased skin temperature. This procedure makes use of a special (infrared) camera to map and record areas of elevated skin temperature.

<sup>20</sup>Jane E. Brody, "Drive Is Planned on Breast Cancer," The New York Times, CXXI (November 1971), 51.



- <sup>21</sup>Neimark.
- <sup>22</sup>Department of Health, Glasgow, Ky., A Reminder for All Women, (April 1970), p. 3.
- <sup>23</sup>Gustav Eckstein, The Body Has a Head (New York, 1970), pp. 78-85.
- <sup>24</sup>Neimark.
- <sup>25</sup>Raymond Greene, Human Hormones (New York, 1970), p. 171.
- <sup>26</sup>National Institutes of Health, Cancer of the Prostate. (1969), p. 5.
- <sup>27</sup>National Institutes of Health, Cancer of the Mouth, (1971), p. 5.
- <sup>28</sup>Neimark.
- <sup>29</sup>Glemser, p. 327.
- <sup>30</sup>National Institutes of Health, Cancer of the Colon and Rectum, (1971), p. 4.
- <sup>31</sup>National Institutes of Health, Leukemias, Lymphomas, and Multiple Myeloma, (1968), p. 2.
- <sup>32</sup>Leukemias, p. 4.
- <sup>33</sup>Leukemias, p. 4.
- <sup>34</sup>Lawrence K. Altmas, "LSD and Heroin Found Helpful in Treatment of Terminally Ill," The New York Times, CXXI (November 1971), 1.
- <sup>35</sup>Richard D. Lyons, "Detergent Shift Suggested by United States Government," The New York Times, CXXI (September 1971), 37.
- <sup>36</sup>"A Way To Stop Tumors," Newsweek, LXXIX (April 10, 1972), 93.
- <sup>37</sup>David G. Jose, M. D., "The Cancer Connection with Immunity and Nutrition," Nutrition Today (March/April 1973), 4-9.
- <sup>38</sup>Neimark.
- <sup>39</sup>Neimark, p. 46.
- <sup>40</sup>Glemser, p. 318.
- <sup>41</sup>Neimark, p. 43.



<sup>42</sup>Neimark, p. 43.

<sup>43</sup>Neimark, p. 44.

<sup>44</sup>Harold M. Schmeck, Jr., "Nixon Signs Cancer Bill; Cites Commitment To Cure," The New York Times, CXXI (December 1971), 16.

<sup>45</sup>Neimark, p. 43.

<sup>46</sup>Bernard Gwertzman, "U. S. and the Soviet to Pool Research in Three Health Areas," The New York Times, CXXI (February 1972), 1.

<sup>47</sup>Glemser, p. 330.



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THE EXISTENTIAL ANALYSIS OF DEATH  
IN HEIDEGGER'S BEING AND TIME  
by  
Ron Cameron

The purpose of philosophy, according to Heidegger, is to provide an answer to the problem of Being (Sein). All former philosophies failed through misguided systems: instead of asking the proper question, "What do we mean by 'being'?" the ancients sought to understand the querie, "What is being?"<sup>1</sup> Asking the wrong question resulted in never resolving the problem. Only an analysis of Being itself, Being qua Being, and not beings (Seiende) as 'worldly' entities, can provide man access to the foundational principles of the universe.<sup>2</sup>

Heidegger's philosophy is important not only for its starting point but also for its methodology. Using Husserlian phenomenology (without the epoche), Heidegger focused on the meaning of Being. "Phenomenology", Heidegger claims, "is our way of access to what is to be the theme of ontology, and it is our way of giving it demonstrative precision. Only as phenomenology, is ontology possible."<sup>3</sup>

Heidegger's new method of analysis may be termed "existential-ontology."<sup>4</sup> In attempting to probe the essence of Sein ontology is used. The particular 'phenomenological' instantiation of Sein is Dasein, human existence. Literally termed "Being-there", Dasein's existence "...includes a certain preontological understanding of being [Sein]."<sup>5</sup> In fact, Dasein is the only exemplification of Sein. Heidegger recognized this when he asserts, "Dasein is ontically distinctive in that it is ontological."<sup>6</sup> Heideggerian ontology may thus be seen as attempting to ground ontology on a firm ontic base.<sup>7</sup>

An 'existentialist' trend, lying at the heart of Heideggerian ontology, projects man as "being-there" (Dasein, i.e., "Being-in-the-world." This is not a spatial term but an existential relation. "Being-in" [the world] (Insein) means that man is "...bound up with the world in his existence."<sup>8</sup> In classical terms, "the 'essence' of Dasein lies in its existence."<sup>9</sup> Dasein exists, therefore, as a being in search of Being (Sein). Nowhere is this search more open than in "being-unto-death." The investigation of death, in this writer's view, is the key to Heidegger's work, Being and Time.

"Death, in the widest sense," observes Heidegger, "is a phenomenon of life. Life must be understood as a kind of Being to which there belongs a Being-in-the-world."<sup>10</sup> Death and the "Being" of Dasein are inseparably related, for death "...is a mode of its Being to which Dasein is exposed and which it must take upon itself..."<sup>11</sup> Death reveals the finitude both of humanity, as



existence unto death, and of Being, "...because if Sein comes to presence in its most privileged way in death."<sup>12</sup>

Most importantly, death focuses "...one's attention on the self as it belongs to individual Dasein..."<sup>13</sup> This rivets one's scrutiny to 'what it means to be', i.e., to authenticity. In this way death "...becomes the ground for authentic existence."<sup>14</sup>

The "basic state of Dasein" is Care.<sup>15</sup> It is "...the ontological term for the totality of Dasein's structural whole."<sup>16</sup> Heidegger defines care (Sorge) the following way: "ahead-of-itself-Being-already-in (the world) as Being-alongside entities which we encounter (within-the-world)."<sup>17</sup> These structures unite in a tripartite formula:

- (1) Existenz - "ahead-of-itself": A 'projection of possibilities' (in future time)
- (2) Facticity - "Being-already-in-the-world": A 'thrownness' into the world (in past time)
- (3) Fallenness - "Being-alongside": an 'everyday' enslavement to the world (in present time)<sup>18</sup>

These three elements

...characterize Being-towards-the-end, and are therefore constitutive for the existential conception of death. As regards its ontological possibility, dying is grounded in care.<sup>19</sup>

Existenz constitutes death in a projection of potentiality. The existentiale [i.e., a structure of care] of possibility "...is the most primordial and ultimate positive way in which Dasein is characterized ontologically."<sup>20</sup> As indicative of what Dasein can be/become, "Dasein is in every case what it can be..."<sup>21</sup> That being the case, death ceases to be a spatial-temporal point in time "when"; instead it is assimilated into my own being now.

Since life in the present is living my own possibilities,

Dasein is dying as long as he lives, even from birth. It is the one possibility of all men, of which men have no choice. It is what makes Dasein's temporality finite, for Dasein's possibilities are limited by his death.<sup>22</sup>

For Heidegger, "Death is a way to be, which Dasein takes over as soon as it is." Hence the maxim: "As soon as man comes to life, he is at once old enough to die."<sup>23</sup>

Authenticity comes in understanding Being-unto-death as the "...eminent potentiality of Dasein."<sup>24</sup> Projected toward death,



Dasein stands before itself in its own most potentiality-for-Being. This is a possibility in which the issue is nothing less than Dasein's Being-in-the-world. Its death is the possibility of no-longer being-able-to-be-there.<sup>25</sup>

Since I alone can die, and that at any time, "death is the possibility of the absolute impossibility of Dasein."<sup>26</sup>

Just as possibility is transformed from immediate protention to a present experience, so also facticity becomes a retention effected within my own Being. Dasein is 'thrown' into a world of things without reason or choice. Consequently, he generally succumbs to 'crowd' (das Man) absorption, losing his individual identity, living inauthentically. Facticity demands a "...way of being in which I exist as a fact. ...'I am and I have to be'"<sup>27</sup> Even in the past I am<sup>28</sup> dying. Facticity reveals "...one's own Dasein [as] always dying already; that is to say, it is in a Being-towards-its-end."<sup>29</sup>

'Thrownness' discloses itself in Befindlichkeit, an "ontological disposition,"<sup>30</sup> a Weltanschauung.<sup>31</sup> This mood, the "...basic state-of-mind of Dasein,"<sup>32</sup> exhibits itself as an attitude of "anxiety" or "dread" [Angst].<sup>33</sup> Anxiety "...confronts us with ourselves" by reflecting "...the disclosure of what it means to be going to die."<sup>34</sup> Whereas fear is concrete apprehensiveness of a particular object or event, "dread is a fear of nothing."<sup>35</sup> Angst is an ontological alienation from the source of man's Being: it is "man's attempt to flee from himself,"<sup>36</sup> the manifestation of Being-in-the-world "...as a thrown Being towards its end."<sup>37</sup>

Fortunately, Angst not only reveals man's facticity and finitude but also points in the direction of the authentic life. Proper acceptance of this 'attunement'

...first and foremost [is] a kind of primordial awe or wonder, a sense of mystery and adventure, even of joy, i.e., the courage and confidence of one who faces his own ontological potential and the meaning of death.<sup>38</sup>

Dasein's basic nature, that of Care, exhibits itself in 'everyday' fallenness. Fallenness "...refers to the tendency of Dasein to exist inauthentically in the they-self [das Man]."<sup>39</sup> Even though Heidegger views Dasein as essentially gregarious, i.e., as "Being-in-the-world," man is individually-alone responsible for his (choice of) life-style. "Falling", as an existentiale, lies at the core of man's Being, and affectively limits the potentialities of individual Dasein, whether he lives authentically or not.

Generally speaking, fallenness causes one to neglect his existenz,<sup>40</sup> and, as a consequence, lead an inauthentic life.



Inauthentic falling lays bare "...everyday Being-towards-death [as] a constant fleeing in the face of death. Being-towards-the end has the mode of evasion in the face of it."<sup>41</sup> Dying eventually becomes a 'public' spectacle rather than an individual encounter.<sup>42</sup>

Angst depicts Dasein's mind-set not only in possibility and facticity, but also in the present mode of fallenness. Rather than understanding one's "ownmost" death as an attitude [i.e., a dreadful acceptance of nothing, rather than an ontic fear of something in spatial-temporal relations], 'everyday' Dasein seeks to substantiate death's definiteness as to a time "when". Heidegger observes that

...in this state-of-mind [i.e., anxiety], everydayness acknowledges a 'higher' certainly than one which is only empirical. One knows about the certainty of death, and yet 'is' not authentically certain of one's own. The falling everydayness of Dasein is acquainted with death's certainty, and yet evades Being-certain. But in the light of what it evades, this very evasion attests phenomenally that death must be conceived as one's own-most possibility, non-relational [i.e., "devoid of relationships"<sup>43</sup>], not to be outstripped, and - above all - certain.<sup>44</sup>

Authentic Being-unto-death is an attitude of acceptance of death, not an actual (futuristic) event. Being "always already"<sup>45</sup> unto death, Dasein faces a death which "...is indefinite as regards its certainty."<sup>46</sup> As a 'necessary' possibility death is certain; as an indeterminate mode of Being death is uncertain. Authentic Dasein, embodying the attitude of dread, exists by 'running forward'<sup>47</sup> toward death as its have-to-be, free for the possibility to be. Inauthentic Dasein "...evades this indefiniteness by conferring definiteness upon it,"<sup>48</sup> enshrouding "...death's ownmost character as a possibility..."<sup>48</sup>

Despite Dasein's transience its very existenz seeks Sein, its ontological ground. Honest searching reveals not only Dasein's mortality but also its potential authenticity:

Death is not merely one of the de facto possibilities of Dasein but rather the 'transcendental' possibility, ...Death is therefore structurally constitutive of all other possibilities of Dasein, as well as normative for their authentic realization.<sup>49</sup>

The question of Being and nothingness (i.e., non-being) can be resolved in recognizing humanity as grounded in Sein whose "There" encompasses negativity as a contingent of its 'horizon.' Thus, Dasein's plenary existenz provides "...that perspective



from which one sees the whole or totality of human existence."<sup>50</sup>  
It is of highest import to recognize that

...when Heidegger speaks of death, he is not speaking of how one thinks at the time in which one is dying..., but what impending death can mean to one in the fullness of one's life. ...In fact, I do not even need to know with certainty that I will die; it is enough to know that I can die.<sup>51</sup>

Heidegger's analysis, not at all "morbid and fatalistic, ...is rather an exciting and courageous awareness of one's finitude."<sup>52</sup>

The distinction between inauthentic and authentic Being-unto-death seems to this writer to be one of attitude and perspective.<sup>53</sup> Inauthenticity exhibits itself by fleeing "...in the face of death,"<sup>54</sup> that is, through "self-deception."<sup>55</sup> In admitting to eventual death, deception ignores the fundamental ontology of Dasein as "Being-unto-death." Yet from a proper perspective of one's self as being in search of Being,<sup>56</sup> "...inauthenticity is based on the possibility of authenticity."<sup>56</sup> Therefore, "...authentic Being-towards-death signifies an existentiell possibility of Dasein."<sup>57</sup> Actualized in 'real-life' situations, "...authenticity is fundamentally facing and enduring death as one's own possibility."<sup>58</sup>

The question of Being, central to Heideggerian ontology, becomes in essence a phenomenology of humanity. Man's existence is temporally conceived, past, present, and future: death alone provides the possibility of integrating Dasein's fragmented existenz. Inauthentic dying flees responsibility by conforming to the masses, ignoring the 'presentness' of death, and projecting it in the future. Dasein, when living in authenticity, 'anxiously' and courageously accepts the certitude of nonbeing, fully cognizant that wholeness is 'possible' only in a death-like attitude. Existence remains potentiality in its "ownmost" way: Being-in-the-world because of Being-unto-death.



## FOOTNOTES

<sup>1</sup>James M. Demske, Being, Man, and Death: A Key to Heidegger (Lexington: The University of Kentucky Press, 1970), p. 12.

<sup>2</sup>N. B. At the end of the paper is found a glossary of key terms used throughout. While the definitions are my own, and therefore without footnotes, they closely represent that of the sources used.

<sup>3</sup>Martin Heidegger, Being and Time, trans. by John Macquarrie and Edward Robinson (New York: Harper and Row, Publishers, 1962), p. 60.

<sup>4</sup>Demske, p. 4.

<sup>5</sup>Ibid., p. 13.

<sup>6</sup>Heidegger, p. 32.

<sup>7</sup>Demske, p. 66.

<sup>8</sup>John Macquarrie, An Existentialist Theology: A Comparison of Heidegger and Bultmann, Harper Torchbooks (New York: Harper and Row, Publishers, 1965), p. 14.

<sup>9</sup>Heidegger, p. 67.

<sup>10</sup>Ibid., p. 140.

<sup>11</sup>Werner Brock, ed., Existence and Being, A Gateway Edition (Chicago: Henry Regnery Company, 1949), p. 55.

<sup>12</sup>Demske, p. 4.

<sup>13</sup>Michael Gelven, A Commentary on Heidegger's "Being and Time", Harper Torchbooks (New York: Harper and Row, Publishers, 1970), p. 144.

<sup>14</sup>Ibid., p. 141.

<sup>15</sup>Heidegger, p. 293.

<sup>16</sup>Ibid., p. 296.

<sup>17</sup>Ibid., p. 293.

<sup>18</sup>Robert C. Solomon, From Rationalism to Existentialism: The Existentialists and their Nineteenth-Century Backgrounds (New York: Harper and Row, Publishers, 1972), p. 210.

<sup>19</sup>Heidegger, p. 296.



- <sup>20</sup>Ibid., p. 183.
- <sup>21</sup>Ibid.
- <sup>22</sup>Solomon, p. 226.
- <sup>23</sup>Heidegger, p. 289.
- <sup>24</sup>Brock, p. 60.
- <sup>25</sup>Heidegger, p. 294.
- <sup>26</sup>Ibid.
- <sup>27</sup>Macquarrie, p. 82.
- <sup>28</sup>N.B. The tense is used intentionally.
- <sup>29</sup>Heidegger, p. 298.
- <sup>30</sup>Demske, p. 21.
- <sup>31</sup>Solomon, p. 214.
- <sup>32</sup>Heidegger, p. 295.
- <sup>33</sup>Macquarrie, p. 68.
- <sup>34</sup>Gelven, p. 151.
- <sup>35</sup>Solomon, p. 215.
- <sup>36</sup>Ibid., p. 222.
- <sup>37</sup>Heidegger, p. 295.
- <sup>38</sup>F. J. Smith, "Two Heideggerian Analyses," Southern Journal of Philosophy, VIII (Winter, 1970), 417.
- <sup>39</sup>Gelven, pp. 151-52.
- <sup>40</sup>Solomon, p. 215.
- <sup>41</sup>Heidegger, p. 298.
- <sup>42</sup>Ibid., p. 297.
- <sup>43</sup>Ibid., p. 294.
- <sup>44</sup>Ibid., p. 302.
- <sup>45</sup>Macquarrie, p. 38.



<sup>46</sup>Heidegger, p. 310.

<sup>47</sup>Smith, 418.

<sup>48</sup>Heidegger, p. 302.

<sup>49</sup>Demske, p. 56.

<sup>50</sup>Gelven, p. 145.

<sup>51</sup>Ibid.

<sup>52</sup>Ibid., p. 157.

<sup>53</sup>On perusing secondary sources the writer discovered that the same suggestion is offered by Gelven, p. 154.

<sup>54</sup>Heidegger, p. 303.

<sup>55</sup>Gelven, p. 153.

<sup>56</sup>Heidegger, p. 303.

<sup>57</sup>Ibid., p. 304.

<sup>58</sup>Solomon, p. 226.



APPENDIX I: GLOSSARY\*

- (1) Angst - an objectless dread; it serves as the overt sign determining whether a person is living authentically\* or not
- (2) Authenticity - a way of living, signified by an acceptance of death as one's "ownmost" potentiality-for-Being
- (3) Das Man - the 'crowd'; existence based not on individuality but on irresponsibility
- (4) Dasein - literally, "Being-there"; Heidegger's term for mankind
- (5) Existential - a broad structure of existence; synonymous with ontological\*
- (6) Existenziale - one of the three structures of Care, whether existenz\*, facticity, or fallenness
- (7) Existentiell - a specific act which, upon its actualization, constitutes an existential\* structure; synonymous with ontic\*
- (8) Existenz - a projection of possibilities (in future time); one of the three constituents of care
- (9) Inauthenticity - a misguided mode of existence, in which the person rejects his individuality, becomes absorbed in das Man\*, and refuses to accept death as a phenomenon of life
- (10) Ontic - a specific, concrete act or event making up an ontological\* structure; synonymous with existentiell\*
- (11) Ontological - an internal structure of existence which is the basis of all ontic\* acts; synonymous with existential\*
- (12) Phenomenology - that analysis of human existence which stresses methodology and centers upon mankind
- (13) Seiende - beings in the world; serving as tools for Dasein\* in his search for Sein\*
- (14) Sein - Being itself; the ultimate goal of Heideggerian phenomenology\*

\*N.B. The asterisk denotes terms defined elsewhere in the appendix.



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# AN ANALYSIS OF AUTOMATED DATA PROCESSING SYSTEMS

by  
David Conway

## INTRODUCTION

Automated data processing has been utilized in the accounting field for many years. The largest impact of ADP was undoubtedly the introduction of the computer in the mid-fifties. Computers since have been developed and revolutionized into machines of great complexity. The development of computers has resulted in economical means of handling data quickly and accurately. The number of businesses using computers has increased greatly in the last few years and is expected to increase even more in the future.

The use of computers in handling accounting data has always presented problems to the auditors of that date. New methods and procedures have had to be developed to perform an audit. The increase in the complexity of computer systems have brought about more and more changes in the audit process to enable the auditor to keep adequate checks on the systems. The greatest auditing process changes have taken place in the areas of reviewing internal control, testing transactions, and examining account balances. An auditor of an ADP system must have knowledge of the system and employ special methods and procedures during the audit.

## REVIEWING INTERNAL CONTROL AND TESTING TRANSACTIONS IN ADP SYSTEMS

The second Auditing Field Work Standard requires a proper study and evaluation of the internal control system a business entity being audited has to determine how much reliance can be placed on it, and to determine the extent of the tests to which auditing procedures are to be restricted. Internal control encompasses more than just control over assets; it covers the entire operations of a company. The auditing of an ADP system requires many changes in the auditing process, especially in evaluating internal control and testing transactions.<sup>1</sup>

### Evaluating Internal Control in an ADP System

The reasons for evaluating internal control in ADP audits remain the same as in conventional audits. However, the use of automated data processing systems places more importance on internal control than does manual operations, for the computer can be used to produce erroneous data to benefit the person causing the false output. The conventional audit trail is usually not present in an ADP system, therefore special techniques must be used to prevent such occurrences.<sup>2</sup>



A starting point of evaluating internal control could be that of determining any weaknesses in the present system of internal control. Weaknesses can cause defalcations to go undetected. Since ADP systems require different techniques of evaluation than conventional systems, a different approach is required. It has been suggested that reasonable assurance in evaluating the three major areas of internal control: <sup>3</sup>(1) organizational, (2) administrative, and (3) procedural.

Organizational controls. Organization has always been important in the internal control structure and has become even more important in the ADP system because of the greater concentration of data processing duties. Organizational controls can be divided into two divisions, the placement of the ADP function within the organization and the division of duties within the ADP group. Most clients expect the auditors to recognize ways of improving utilization of the computer and to give constructive suggestions as they proceed with the audit.

The ADP group should be functionally independent of the other operating departments. The best setup would be to have the data processing as a separate functional area. This type of organization helps control by preventing one user, such as accounting, from dominating the equipment.

Division of duties within the data processing group is also important. For example, design and development should be separated from programming. Also, programmers should not operate the equipment.<sup>4</sup> It can be seen at this point that these procedures are a variation of "separation of functions" applied to ADP systems.

Administrative controls. After reviewing the placement of ADP within the organization and the division of duties within the data processing department, the auditor should next review administrative control. The major areas of interest are program documentation and program testing.

Documentation helps assure consistency in operations. For this reason it is an important aspect of internal control. Documentation helps the auditor make meaningful tests of the system; it is very important from an auditor's standpoint. An area of special attention to an auditor is the program features which perform data editing functions. "Editing functions test the data for reasonableness against known possible error conditions."<sup>5</sup>

The auditor should assure himself that program testing procedures for new programs exist and are applied. Since program modification is an important part of program testing, this feature should also be available.<sup>6</sup>

Procedural controls. Procedural controls is the third area of internal control to be investigated in the ADP function. These



controls include source data or input controls, processing controls, and output controls.

The weakest point of processing events is input. Computer programs can have controls designed in them to check for various errors; the different departments may develop routines within and between to detect errors, but these controls may not detect an error in a transaction if the error was made in recording of the data are extremely important.

Processing controls are also important in a good internal control system, insuring that all data entering the ADP systems makes its way through the system. One control used widely is a batch control. This control involves the originating departments keeping totals of data given to the data processing department. The receiving department also keeps totals of the data received. This control allows the auditor to make sure that all original data found its way to a receiving department.

Output controls are final checks on the accuracy and propriety of the information processed. Some examples include the comparison of the totals of processed information to input controls totals. Prenumbered output forms compared to the number of input forms have gained wide acceptance. Sampling is also used. Auditors trace randomly selected transactions from source documents through the processing system to the output destination.

Many other procedural controls also can be used, such as limiting access to the computer, reducing unauthorized manipulation of data such as not allowing equipment operators access to object and source programs.<sup>7</sup>

Summary of evaluation of internal control. The evaluation of internal control in an ADP system is performed for the same reasons as in an ordinary audit. The differences are the methods and procedures used to evaluate the internal control. Auditors must have sufficient knowledge to review, understand, and evaluate the areas of organizational, administrative and procedural controls. The auditor must have enough expertise to perform meaningful tests of the controls in the system.<sup>8</sup>

#### Testing Transactions in an ADP System

Just as in a conventional audit, the testing of transactions must also be performed in an audit of an ADP system. Whether to audit around or through the computer was at one time an unsolved argument. Auditing through the computer is now preferred in almost all cases. However, special methods of testing the transactions must be used when auditing an ADP system.

A new audit outlook has developed in relation to the "through the computer" approach. Large corporations have such a



hugh number of transactions that testing enough of the transactions to base an opinion on would require a vast amount of time. By using the "through the computer" approach auditors can place less emphasis on the testing of records and concentrate their tests on the system that produced the records. "If the system is found to be reliable, it is contended that the records can be accepted as being reliable."<sup>9</sup> One method of testing "the system" is by using computer audit programs and test decks.

Audit programs and test decks. Computer audit programs should be used as a tool to evaluate mechanized routine audit tasks that would otherwise have to be done manually. The audit programs also enable the auditor to determine the quality of information generated by the system. Audit programs can be used to select certain accounts receivable to be confirmed while automatically preparing confirmation requests. Another use would be the testing of large amounts of transactions and reporting only on the ones that do not meet the predetermined criteria, thus, "auditing by exception."

Test decks evaluate the quality of the data processing system in use. Actually the auditor allows the system to audit itself. This is accomplished by the auditor preparing input data for every feasible type of transaction that could occur. The auditor inserts the input and lets it run on the existing program. The actual output is compared with the predetermined output. This tests specific program controls accurately, effectively, and at a reasonable cost.<sup>10</sup>

Statistical sampling. There are many other methods utilized to test transactions in an ADP system. While some auditors prefer the use of the audit program and test decks, many use statistical sampling. The users feel statistical sampling is superior to judgment sampling, which is based on the dollar amount balance or activity of the account. Statistical sampling is said to provide the auditor with a more independent and objective basis for his opinion. With this approach, "the auditor now examines fewer transactions but audits each transaction he chooses more thoroughly than before."<sup>11</sup>

#### CHECKING ACCOUNT BALANCES IN AN ADP SYSTEM

An ADP system of accounting presents another difficulty in the area of checking account balances. The balance may not be in a form readable by the human eye or the transactions giving rise to the balance may not be available. However, the auditor must obtain sufficient competent evidential matter through inspection, observation, inquiries, and confirmations to afford a reasonable basis for rendering an opinion as to the existence of the recorded assets and liabilities. Since conventional means do not apply readily, other means must be developed.



If the testing of transactions proved reliable, can the auditor assume that the correctly recorded transactions led to correct account balances? No, more proof is needed. Several methods are available for the auditor's use.

The auditor can verify cash by surprise cash counts and bank cut-off statements. Confirmations of debt should be sent out to selected debtors. Investments can be verified by confirmations or physical inspections of the certificates of stock. The auditor should observe the taking of the physical inventory, facilitated by a print-out list of assets from the computer to serve as a checklist. Every account can be confirmed in a similar manner.<sup>12</sup>

### CONCLUSION

The auditing of a business entity utilizing an ADP system has a significant impact on the auditing process. ADP systems do not change the objective of the audit, nor do they change the order of the major phases of the audit. The changes relate to the methods and procedures performed during the audit. Auditing an ADP system requires unique auditing techniques, especially in the areas of evaluating internal control, testing transactions, and checking account balances, due to the elimination of the conventional audit trail. An audit of an ADP system also has an impact on the auditor. The auditor must have an in depth knowledge and understanding of the ADP system being audited. However, after incorporating the different methods and procedures into the audit, the result is the same: an expression of an opinion as to the fairness of the financial statements being examined.



## FOOTNOTES

<sup>1</sup>Robert G. Schomo, "Testing Internal Control in a EDP System," Management Accounting, April, 1973, 39.

<sup>2</sup>Clarence C. Smith and Geraldine F. Jasper, "Using the Computer in Audit Work," Management Accounting, October, 1972, 35.

<sup>3</sup>Richard C. John and Thomas J. Nissen, "Evaluating Internal Control in EDP Audits," The Journal of Accountancy, February, 1970, 31-2.

<sup>4</sup>Ibid., 32.

<sup>5</sup>Ibid., 32.

<sup>6</sup>Ibid., 33.

<sup>7</sup>Ibid., 33-4.

<sup>8</sup>Ibid., 33-4.

<sup>9</sup>R. G. Schomo, "Testing Internal Control in an EDP System," p. 41.

<sup>10</sup>Ibid., 41.

<sup>11</sup>C. O. Smith and G. F. Jasper, "Using the Computer in Audit Work," 34.

<sup>12</sup>Ibid., 38.



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## RELIGIOUS MOTIFS IN CAT'S CRADLE AND PLAYER PIANO

by  
Tony K. Stewart

Twentieth Century literature often focused on man's problems in a scientifically oriented society. Kurt Vonnegut, Jr., a contemporary novelist, concentrates on the effects of the dynamic changes in modern society. The religious observer is faced with the same problems; consequently, modern theologians have been able to advantageously draw on current literature.

The noted theologian, Paul Tillich, forwarded a system to link religious concepts with contemporary culture. It is known as his "method of correlation." This system correlates existential questions arising from the social world and gives religious answers in response.<sup>1</sup> Nathan A. Scott, Jr., a former colleague of Tillich's, has concentrated especially on the correlation of religion and the literary arts. Many of Scott's and Tillich's ideas relate to concepts in the fictional works of Vonnegut.

Through various circumstances of his youth, Vonnegut became a concerned critic of modern technology. Having experienced W. W. II and seen the effects of the emerging corporate state, he began to voice his opinion. In one sense, Vonnegut's works present a warning to modern man about the rise of the automated state.

Vonnegut is not against all technology but advocates a revolution for the real direction of progress. This revolution is in opposition to the "path of advancing technology and of science for its own sake."<sup>2</sup> By expressing such ideas on technology, science, and the industrial society, Vonnegut became an harbinger of a new trend in writing. This trend was aimed at showing modern man into what kind of a trap he was allowing himself to be led. Scott sums up this movement:

A whole new literature began to appear whose purpose it was to insist on the inauthenticity and facelessness of the life that awaits us in an increasingly standardized mass society where the individual is caught up "into the rank and file of some operational combine," or "into some category of occupational concern with its paraphernalia: code of behaviour, standards of opinion, lingo, and so forth."<sup>3</sup>

To this end Vonnegut devoted his first novel.

The book was entitled Player Piano and was first published in 1952. The name itself carries a symbolic meaning which is indicative of the essence of the theme. Player Piano



points to mechanization symbolized by the player piano: a player piano produces music without a musician, just as machines produce prosperity without involving labor. The barb is directed at the American interest in gadgetry.<sup>4</sup>

The novel is based on a future America that has assigned the coordination of its industrial complex to the computer. The central computer, known as EPICAC, was the product of a war-time economy that performed so efficiently it persuaded the government to allow it to remain in operation indefinitely. From that point EPICAC continued the process of eliminating man from the industrial works as completely as possible.

Throughout Player Piano Vonnegut presented a picture of a very drab and meaningless existence for the common man. His main character, Dr. Paul Proteus of the socially elite engineering class, was in conflict over being a decisive part of the economic system which he feared did dehumanize. His struggle was whether or not to defect from it or go on living comfortably as a part of the industrial complex.

With this setting, Vonnegut's scheme exemplified one of Tillich's prevalent concerns. This concern is the idea of "objectification." He (Tillich) stated that this "profound insight" is the "making of people into objects, into things." It is his idea, too, that "this is perhaps the greatest temptation in an industrial society in which everybody is brought into the process of mechanical production and consumption..."<sup>5</sup>

As Proteus began to see what the system had done, his thoughts revealed his consciousness. The contrast came out sharply when he talked to his colleagues. They constantly referred to what they (the engineering class) had given the common people (P. P. p. 177), as if they were machines needing only comfortable surroundings, fuel (food), a moderate work load (for longer life) and continued maintenance (free doctors, etc.).

Tillich's appraisal of the overall situation goes beyond this idea of "objectification", though. He describes our present culture as "one predominant movement and an increasingly powerful protest against this movement." The industrialized society is the essence of the movement. In protest is the "spirit of the existential analysis of man's actual predicament."<sup>6</sup>

This analysis, the center of protest, is concerned with man's position in our production-oriented society:

Man is supposed to be the master of his world and of himself. But actually he has become a part of the reality he has created, an object among objects, a thing among things, a cog within a universal machine to which he must adapt himself in order not to be smashed by it... Out of this



predicament of man in the industrialized society the experiences of emptiness and meaninglessness, of dehumanization and estrangement have resulted.<sup>7</sup>

The crux of the problems brought on from misguided technology were presented in no uncertain terms by Proteus' friend, Ed Finnerty. The expose came when Proteus was speaking of the Second Industrial Revolution. That revolution relieved the drudgery of menial tasks (the First devalued muscle work by machines). Finnerty pointed out that along with increased production "dope addiction, alcoholism, and suicide went up proportionately" and "...organized vice and divorce and juvenile delinquency, all parallel the growth..." (P. P. p. 58).

To this average society Proteus looked with mounting guilt. He finally realized and accepted the fact that the engineers had "traded these people (commoners) out of what was the most important thing on earth to them - the feeling of being needed and useful, the foundation of self-respect." (P. P. p. 169).

With his protagonist's frightful discovery, Vonnegut reinforced an opinion Scott has voiced:

Many of the most thoughtful observers of modern life have noticed how the logic of technocratic culture reduces the concrete particularity of the unique individual to a purely abstract and functional identity: and they also have noticed the gray anonymity of life that this reduction accomplishes.

This feeling flows freely in Vonnegut's novel.

With the newly realized weight of the common man's predicament bearing down on Proteus' shoulders, he joined forces with the Ghost Shirt Society. This militant group intended to give the world back to the people by overthrowing the industrial complex. This commitment "confirms man's capacity to find a cause to believe in" and consequently "to sense his own worth as a person." Foregoing the inevitably of man's attempt to replace himself by machines, Vonnegut points out "it is worthwhile resisting mindless progress, thereby affirming the value of imperfection, frailty, and even stupidity."<sup>9</sup> The Movement states this very concisely in a letter to all managers and engineers before their revolution. (P. P. p. 184-6).

Of course the revolution failed. Reverend Lasher, one of Proteus' co-conspirators, summed up the situation near their capitulation. "It doesn't matter whether we win or lose, Dr. The important thing is that we tried." As he reminded them of his real business, that of a minister, he revealed the acidity and earnesty of Vonnegut's attitudes toward undirected technology.



In regard to the revolution and its meaning he stated, "First and last, I'm an enemy of the Devil, a man of God." (P. P. p. 315).

Vonnegut, with his protest against mass technology and man's general inhumanity to his brother, has had to construct a religious world view that encompasses each. This view can not solely consist of such protest, however. It must be capable of providing a solution or at least a base with which the advocate can combat the opposed forces and actions. Scott has directed his thoughts regarding this problem:

...it has been necessary for the artist to try to construct some viable system of belief for himself by an effort of personal vision: he has had to become, in a sense, his own priest, his own guide... For amid the confusion of values of this age, the artist is attempting to invent a system of attitudes and beliefs that will give meaning to his world.<sup>10</sup>

Vonnegut has expressed very similar attitudes toward the dual role of the literary artist, i.e. providing answers as well as pointing out areas needing closer scrutiny. In one novel he went a little farther, stating the writer "takes on a sacred obligation to produce beauty and enlightenment and comfort at top speed."<sup>11</sup> Vonnegut proceeded to fulfil these notions by creating a new religion: Bokononism.

Bokononism is a religion Vonnegut masterminded in Cat's Cradle. Bokonon, the mountain-messiah, believed "that good societies could be built only by pitting good against evil and by keeping the tension between the two high at all times." Thus, the religion (good) was outlawed by the government (bad) resulting in what Bokonon termed "Dynamic Tension." (C. C. p. 74). This forced the people to practice their faith in secret. The results proved very fruitful.

The basic philosophy of Bokononism is man-centered. It is based on man's need for love and self-deception in the modern world turned illusion by science and technology.<sup>12</sup> When a practitioner was asked exactly what was sacred in Bokononism he replied, "Man... That's all. Just man." (C. C. p. 143). Naturally, with the religion focusing on man and his problems, the over-crowded, poverty-stricken San Lorenzans rallied to it.

The religion became just about the peoples' only hope. The truth of their existence, so similar to contemporary man's, was so terrible that Bokonon provided the people with better and better lies. (C. C. p. 118).

He began his Books of Bokonon with the statement: "All the true things I am about to tell you are shameless lies."



He then warned that "Anyone unable to understand how a useful religion can be founded on lies will not understand this book either." (C. C. p. 14). He related why this was so in one of his innumerable calypsos:

I wanted all things  
To seem to make some sense,  
So we all could be happy, yes,  
Instead of tense.  
I made lies  
So that they all fit nice,  
And I made this sad world  
A par-a-dise.

(C. C. p. 90)

One can see the lightness pervading Vonnegut's approach. This is just as deceiving, however, as his comment on lies. Yet he addresses all the phases of his created religion in this manner, perhaps making the seriousness of his point much clearer.

The modern novelists, including Vonnegut, have no "arcane God dwelling in distant splendor." They have turned to a God "who is present in the midst of life." These writers feel "the only transcendence our age is capable of is a concern for others..."<sup>13</sup> It is this kind of compassion and love that Bokononism advocates: it is the real center of Vonnegut's answer.

In regard to Vonnegut's solution, that of simple loving, Tillich proclaims, "There is nothing above love... It enters every concrete situation and works for the reunion of the separated in a unique way."<sup>14</sup> Through the experience of this reunion, as man reaches out to his neighbor, a comradeship develops between the participants. This closeness, through freely helping and loving each other, becomes the major factor in reducing conflict. In this manner Vonnegut proposes that mankind can reduce the problems of this world at least to a tolerable level. It simultaneously gives people a reason for wanting to live and enjoy their humanity.

In Cat's Cradle, Dr. Koenigswald, the war criminal responsible for the death of thousands of Jews at Auschwitz, came to experience this love. Though not a Bokononist, he agreed with some of their ideas. He remarked, "I am a very bad scientist. I will do anything to make a human being feel better, even if its unscientific." (C. C. p. 148). Obviously it appears that Vonnegut is saying that there is a way to break through inhumanity of science and technology, i.e. through loving your fellow man.

Bokonon preached this idea relentlessly, forcing his advocates to take notice until they, too, realized its importance. He told the followers that "it is very wrong not to love everyone exactly the same." (C. C. p. 141). He went on to name an individual a sin-wat if he was selfish enough to want all of



someone's love. He consequently invented a means of making this love more meaningful through symbolic ritual.

Vonnegut purposely pointed out in Cat's Cradle that Bokonon was extremely interested in the "outward trappings of... religion" i.e. very interested in ritual. (C. C. p. 75). With this clue Vonnegut later revealed the results of Bokonon's interest in ceremony: the concocted ritual was known as boko-maru or the "mingling of awarenesses." The act is performed with two people baring their feet touching soles while reclining on the ground. It was said that "...it is impossible to be sole-to-sole with another person without loving the person, providing the feet of both persons are clean and nicely tended." (C. C. p. 109). And as in all of Bokonon's teachings the basis for the act is in calypso form:

We will touch our feet, yes,  
Yes, for all we're worth,  
And we will love each other, yes,  
Yes, like we love our Mother Earth.  
(C. C. p. 109)

Vonnegut quickly informed the reader after the explanation that boko-maru does work. In the character's own words, "People who do that (boko-maru) really do feel better about each other and the world." (C. C. p. 117)

Vonnegut's answer is certainly a legitimate if not a complete solution to the problems facing this world. According to Tillich, once again, "Love includes justice to others and to oneself." He also added, "Love is the solution of the problem: moralizing and morality."<sup>15</sup> Vonnegut reveals the scope of his faith in this love through another Bokononist's speech:

"Think of people..."  
"And children murdered in war..."  
"Think of peace..."  
"Think of brotherly love."  
"Think of plenty."  
"Think of what paradise this world  
would be if men were kind and wise."  
(C. C. p. 171)

This shows Vonnegut's feeling for the necessity of human affection. Though conscious development of a religious construct emerges most fully in Cat's Cradle, the antecedents of Bokononism had been laid down in earlier works, such as Player Piano.

As has been previously mentioned, Dr. Paul Proteus in Player Piano fits very nicely into Vonnegut's humanistically oriented character mold. Proteus played the role of a modern martyr. He forfeited his position of wealth and status to help the poor people. Vonnegut went to the trouble to lay Proteus'



motives out in the open very bluntly. He said, "Paul wanted to love the common people across the river. Wanted to help, to let them know they were loved. Wanted them to love him, too." (P. P. p. 103). As is his habit, Vonnegut "proved" the power of love in the novel. One example showed Shepherd, a ladder-climbing competitor who thrived on hatred and fighting completely stopped and disarmed by Proteus' use of love and forgiveness. (P. P. p. 55). The theme is carried out in numerous examples throughout the novel.

Obviously the key to Vonnegut is the nerve-center of Bokononism: love and compassion. The overall effect is his request for the individual not to allow himself to adjust to the unthinkable and unbearable. He is telling those that will listen that there is too much inhumanity in the world presently without adding any to it. He pleads, "Be kind. Reach out. Have a heart."<sup>16</sup>

Vonnegut's contrived religion is, then, a religion that supports the notion of unqualified love. It strives toward a deeper, realistic understanding of the human condition. The manner in which the artist, Vonnegut, has applied his realization of the needs of his common brothers comes from the true art of the twentieth century. The significance of this style comes "...out of the epochal convulsions of our time, out of full immersion in the condition of man today."<sup>17</sup> Vonnegut definitely succeeded in experiencing this upheaval as Bokononism attests.

The Vonnegut message can be viewed religiously as sustain - the real province of contemporary literary art. Scott concludes:

...the true foundation of literature is today, and always has been to awaken in us a greater lucidity about our common humanitus\* and its commitment to the manifold burdens of time and history...<sup>18</sup>



## FOOTNOTES

<sup>1</sup>The "method of correlation" is a culmination of ideas rather than a single concise thought. See Paul Tillich, Theology of Culture (New York: Oxford University Press, 1959), p. 42; Systematic Theology, Vol. 1 (Chicago: The University of Chicago Press, 1963), p. 67 ff.

<sup>2</sup>Jerome Klinkowitz, "Why They Read Vonnegut", The Vonnegut Statement, ed. Jerome Klinkowitz and John Somer (New York: Delacorte/Seymour Lawrence, 1973), p. 27.

<sup>3</sup>Nathan Scott, Jr., The Broken Center: Studies in the Theological Horizon of Modern Literature (New Haven, Conn.: Yale University Press, 1966), p. 190.

<sup>4</sup>Mary Sue Schriber, "You've Come a Long Way, Babbit! From Zenith to Ilium", Twentieth Century Literature, XVII (April, 1971), 106.

<sup>5</sup>Tillich, Theology of Culture, pp. 210, 212-3.

<sup>6</sup>Ibid., p. 43.

<sup>7</sup>Ibid., p. 46.

<sup>8</sup>Scott, The Broken Center: Studies in the Theological Horizon of Modern Literature, p. 16.

<sup>9</sup>John R. May, "Vonnegut's Humor and the Limits of Hope", Twentieth Century Literature, XVIII (January, 1972), 33.

<sup>10</sup>Scott, The Broken Center: Studies in the Theological Horizon of Modern Literature, p. 8.

<sup>11</sup>Kurt Vonnegut, Jr., Cat's Cradle (New York: Dell Publishing Co., Inc., 1963), p. 156.

<sup>12</sup>Stanley Schatt, "The World of Kurt Vonnegut, Jr.", Critique, XII (#3, 1971), 57.

<sup>13</sup>Paul Elmen, "Reality in Contemporary Fiction", The Climate of Faith in Modern Literature, ed. Nathan A. Scott, Jr. (New York: The Seabury Press, Inc., 1964), p. 93.

<sup>14</sup>Tillich, Theology of Culture, p. 145.

<sup>15</sup>Ibid.

<sup>16</sup>James R. Tunnell, "Kesey and Vonnegut: Preachers of Redemption", Christian Century, LXXXIX (November 22, 1972), 1181.



<sup>17</sup>Klinkowitz, "Kurt Vonnegut, Jr., and the Crime of His Times", 50.

<sup>18</sup>Scott, The Broken Center: Studies in the Theological Horizon of Modern Literature, p. 36.

\* Suggestive use made by Roy Harvey Pearce in the essay "Historicism Once More", Kenyon Review, XX (1958), 554-91.



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## THE PHYSIOLOGICAL EFFECTS OF NOISE

by  
Douglas L. Mullikin

Noise is more than just a discomfort or mere annoyance; it is a serious threat to health and well-being.

"Like a drug" which produces measurable effects when it enters the body, noise is being found to induce physiological changes that are suspected of having a relation to disease.<sup>1</sup>

Generally, our bodies cope with sounds up to about 80 decibels fairly well. Continuous exposure to a decibel level above 85 not only makes us uncomfortable but can produce hearing loss.<sup>2</sup>

A University of Tennessee professor, David M. Lipscomb, tested the effects of loud rock music on guinea pigs in a laboratory experiment. The animals were exposed to recordings played at 122 decibels - the intensity at which Dr. Lipscomb had recorded it in a Knoxville discotheque - for four hours a day. After three months, Dr. Lipscomb examined the guinea pigs and found that as many as a quarter of the cells in the animals' inner ears had been destroyed. Later, he tested the hearing of 3,000 Knoxville students. Among sixth-graders, less than four percent showed hearing disability for high frequency sounds, but among twelfth-graders, nearly 11 percent showed this kind of damage; and among freshman at the university, hearing loss had occurred in more than three out of ten.<sup>3</sup>

When we are prepared for a loud noise, we protect ourselves by tightening two muscles inside our ears. This reduces the amplitude of vibration of the eardrum that is transmitted to the inner ear. But if the noise continues for a considerable length of time, these muscles relax and tire, and the inner ear is bombarded. Eventually we hear a ringing in our ears after the noise is gone - which means that we have also lost a small portion of our hearing. Enough exposure to loud noise can cause total loss of useful hearing.<sup>4</sup>

Eighteen million Americans suffer from some degree of hearing loss. This is more than suffer from all other disabilities combined. An estimated two out of three working males are victims of "perceptive deafness," caused by the continuous crushing of loud sounds (over 80 decibels) on the supersensitive hearing machinery of the ear. There are some 34 million Americans who are exposed to such sounds during their working day. Fifty percent of those exposed to more than 95 decibels - in shipyards, foundries, boiler factories and other noisy industries - will have a compensating hearing loss after ten years. The loss cannot be recovered.<sup>5</sup>



Dr. Samuel Rosen, professor of ear surgery at New York's Mount Sinai School of Medicine, tested the sound output of a rock music group and noted a very high decibel level of 114. He was not surprised to learn that the young leader had experienced a period of deafness in his right ear. From the severity and duration of such a period of temporary deafness or "temporary threshold shift," as it is called, otologists can determine a person's adjustment to noise, and predict the likelihood of permanent hearing loss with continued exposure to loud sounds.

Dr. Chauncey Leake of the University of California Medical Center at San Francisco says that noise affects the nervous, endocrine and reproductive systems. He suspects damage to unborn children also occurs.

Dr. Samuel Rosen says that noise causes changes which occur through the vegetative nervous system, which plays a role in regulating the "changing caliber of blood vessels." Constriction of blood vessels occurs regardless of whether an individual likes or dislikes a given noise. And it occurs irrespective of whether a person has been subject to that particular sound in the past. However, the intensity of response appears to be clearly related to some degree to prior exposure and to an individual's general state of health and lifestyle.

In an unprecedented series of experiments in the early 1960s, Dr. Gerd Jansen, then with the Max Planck Institute in Dortmund, Germany, established the limits above which noise causes physical damage. In one experiment, conducted over a two-year period Dr. Jansen and his associates tested 1005 workmen in West German steel mills and ironworks; 665 who worked under the noisiest conditions, 340 in quiet jobs. Under laboratory conditions in another experiment, men were exposed to bursts of sudden, unpredictable noise at varying sound levels, for periods varying from 1/2 second to 90 minutes.

Dr. Jansen discovered that the body's autonomic nervous system begins to react at 70 decibels, equivalent to the sound of traffic on a relatively quiet city street. The autonomic nervous system includes that network of nerve fibers and ductless glands which regulates such involuntary responses as heartbeat, temperature, digestion and respiration. At 70 decibels of sound, vaso-constrictive effects were noted - narrowing of the arteries, which raises the diastolic blood pressure and also lessens the supply of blood to the heart. As the intensity of sound increased, the effects became more noticeable: dilation of the pupils, drying of the mouth and tongue, loss of skin color, contraction of leg, abdomen and chest muscles, sudden excess production of adrenaline, stoppage of the flow of gastric juices, and excitation of the heart. The subject's experience of these effects was automatic, unaffected by his health, his annoyance, or whether he was accustomed to noise on his job.



Dr. Rosen and his colleagues have conducted comparative studies on the effects of noise on urban dwellers in the German city of Dortmund, on New Yorkers and on the primitive Mabaans, an African tribe living in southeast Sudan. The urbanites came from an environment in which loud noise is an everyday occurrence. Their diets were rich in meat, butter and other animal fats. Coronary disease and hypertension are no strangers to them. The Mabaans, in contrast, live in virtual silence, are mainly vegetarians and rarely, if ever, have high blood pressure.

When exposed to the noise level of a heavy truck, 90-95 decibels, blood vessels constricted both in primitive tribesmen and individuals from industrial societies. Among tribesmen, however, constriction and relaxation of vessels were rapid, showing both quick response to and quick recovery from the stress of loud sound. Among the Westerners, vessels remained constricted for longer periods, indicating a lesser degree of flexibility in their blood vessels and a weakened capacity to recover from the effects of noise.

Dr. Jansen's examination of steel-mill workers exposed to the steady pound of high-volume noise brought the discovery of an unusually large number with cardiac disorders. This is apparently the cumulative result of the disturbance in the autonomic nervous system caused by continuous noise in the steel-mill.

"The length of time it takes for the body to return to its normal state after exposure to loud noise," says Dr. Rosen, "is roughly the same as the duration of the noise itself. But if the noise lasts for hours, recovery may take a good deal longer."

Dr. Irving Fish, assistant professor of neurology at New York University's Medical School, says: "Sufferers from diseases such as heart trouble, asthma, ulcers and gastrointestinal spasms, may all be adversely affected by prolonged or sudden noise."

Cardiac patients are acutely vulnerable. Loud noises, such as a bursting paper bag close to the ear, the backfire of a truck, the blare of an auto horn, may cause an automatic response which can bring on an anginal seizure in a heart patient.

Noise has a subtle effect on a sleeping individual. Dr. Jansen and Dr. Gunther Lehmann, among others, have used electrocardiographs and electroencephalographs to demonstrate that bursts of sounds - even when mild enough at 55 decibels not to wake the sleeper - are recorded by the brain. In addition, the autonomic nervous system responds just as it does during the waking hours. The effect is to break a long restful slumber into a less beneficial series of catnaps.<sup>9</sup>



Dr. Julius Buchwald, a psychiatrist at Downstate Medical Center of the State University of New York, testifying before a state legislative committee on jet noise, cited paranoid delusions, hallucinations, suicidal and homicidal impulses as some of the possible consequences of habitually noise-interrupted sleep. These violent effects occur particularly on aged or sick people.<sup>10</sup>

Intense noise or vibration at infrasonic levels (below the hearing range) also presents a potential threat to health. These low-frequency waves travel easily through an eight-foot-thick wall. Directly affecting the brain they can cause headaches, loss of equilibrium, and nausea, in addition to damage to the middle ear.

Some machines produce tiny amounts of infra-sounds that are too small to have any effect. In recent experiments, however, Vladimir Gavreau, head of the French government's Electro-Acoustic Laboratory in Marseille, has found that old industrial ventilators, air-conditioning units and family oil burners all may produce infrasound at "dangerous" levels. The infrasound generated in the oil burner, for example, is enhanced by the chimney, which acts as an "organ pipe," then increased again by nearby rooms whose proportions are responsive to the resonance. Dr. Gavreau believes these effects may help explain such complaints as "housewife headache."<sup>11</sup>

At the other end of the sound scale is ultra-sound, made up of very small wavelengths, above hearing range. Recently, workers in an English factory began complaining of unaccountable headaches, fatigue and nausea. Measurements showed a tolerable 76 to 80 decibels as the noise level. When complaints persisted, scientists examined the drilling, welding, soldering and washing devices and discovered that high-intensity ultra-sounds were also being produced. Once these were eliminated by adjustment of the machines, there was an immediate drop-off in symptoms.<sup>12</sup>

"We require a reasonable level of stimulation to maintain our mental and physical health," says Dr. Bruce L. Welch, professor of psychiatry and behavioral science at the Johns Hopkins University in Baltimore. "But it is also true that stimulus overloading can cause breakdowns of both our mental and our physical health."<sup>13</sup>

Former U. S. Surgeon General William Stewart, summing up the First National Conference on Noise as a Public Health Hazard, defined its goal, "These movements must become stronger in our jet age world than the noise they seek to abate. Noise is not something we are going to be able to live with. It must be controlled, on the drawing boards and in the courts."<sup>14</sup>



## FOOTNOTES

<sup>1</sup>Barbara J. Culliton, "Noise: Polluting the Environment," Science News, IIIC (January 31, 1974), 132-133.

<sup>2</sup>Vern Knudsen, "Noise, A Major Health Problem," Parents' Magazine and Better Family Living, VL (February 1970), 66-68.

<sup>3</sup>Ibid.

<sup>4</sup>"Noise, A Major Health Problem," pp. 66-68.

<sup>5</sup>James Stewart-Gordan, "We're Poisoning Ourselves with Noise," Reader's Digest, IVC (February 1970), 187-194.

<sup>6</sup>Ibid.

<sup>7</sup>Ibid.

<sup>8</sup>Ibid.

<sup>9</sup>Ibid.

<sup>10</sup>Ibid.

<sup>11</sup>Ibid.

<sup>12</sup>Ibid.

<sup>13</sup>"The Next Sound You Hear May Be Too Much," Changing Times, XXV (March 1971), 33-35.

<sup>14</sup>Ibid.



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A NOTE ON AN OFT PONDERED PASSAGE OF WALDEN  
by  
Edward L. Ryan III

"I long ago lost a hound, a bay horse, and a turtledove, and am still on their trail. Many are the travelers I have spoken concerning them, describing their tracks and what calls they answer to I met one or two who had heard the horse, and even seen the dove disappear behind a cloud, and they seemed as anxious to recover them as if they had lost them themselves."

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Paul, Sherman, (ed.), Walden and Civil Disobedience (Boston: Houghton Mifflin Co., 1957), p. 11.

"This passage (Walden, Chapter 1) has been the seed-bed of a considerable scholarship. Many have tried to fix its meaning and find its sources. Even Emerson suggested that the hound was the book Thoreau would liked to have written, the bay horse his desire for property, and the turtle-dove the wife of his dream. To one inquisitive correspondent, however, Thoreau explained that these animals might represent his "losses," but that he had lost "a far finer and more ethereal treasure, which commonly no loss of...will symbolize." As for sources, the passage from Mencius that Thoreau selected for The Dial might do better, say, than Voltaire or Dante: "If a man lose his fowls or his dogs, he knows how to seek them. There are those who lose their hearts and know not how to seek them. The duty of the student is no other than to seek his lost heart." The heart, as Mencius' writting makes clear, is man's natural goodness, despoiled - and lost - by his contact with the world."

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Paul, Sherman, (ed.), Walden and Civil Disobedience (Boston: Houghton Mifflin Co., 1957), p. 11.

Let us begin with the hound and think of it as a mutation of a colloquialism "to the hounds" or a fox hunt, from which we can pick up on the idea of a hunt. Let us now derive from "hunt" the concept of a search, and this leads us to the search for the "good life" as defined by Thoreau.



Consider now, the bay horse. Let it represent a means of joining the hunt, or rather as a means of transportation. If we take this idea of transportation and think of it as Thoreau's move to Walden Pond, we can then allude to his expressions of preserving the "body heat" and lifting the spirit.

Finally let the turtle-dove represent peace, be it peace of mind in having found nature, the ideas of freedom, or the generalized ideas of peace.

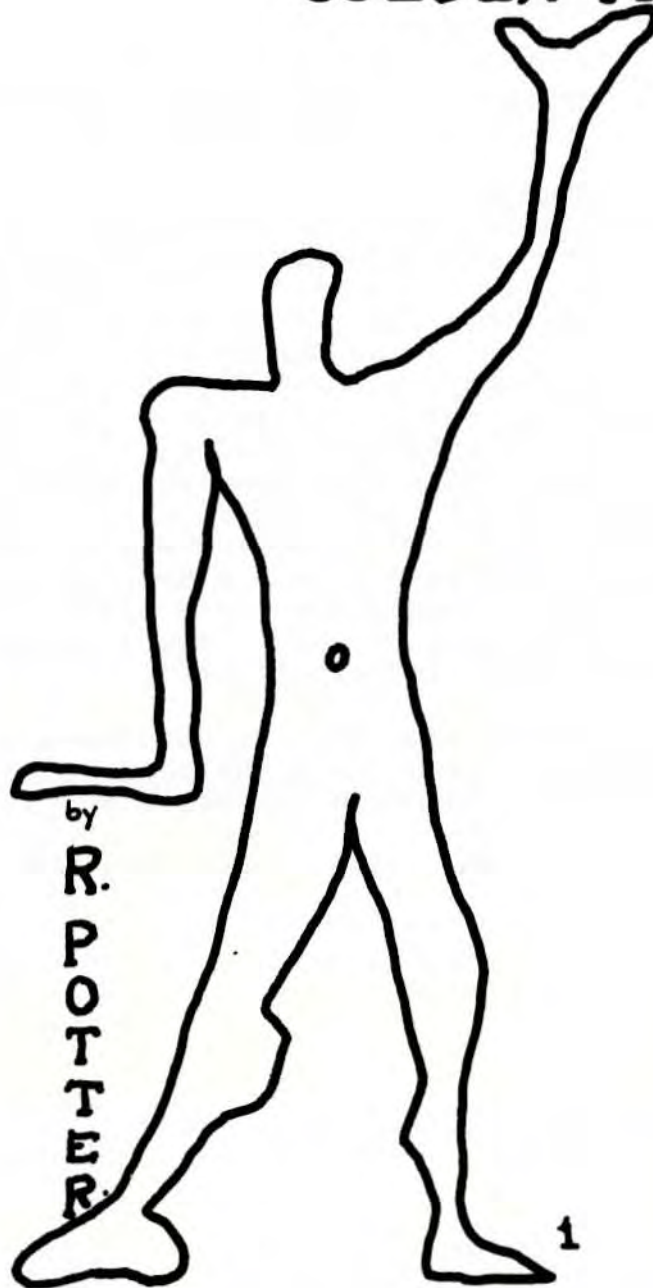
In his sojourn to Walden pond Thoreau learned about life, eternity, expansion of the spirit, and he found freedom to move in dimensions that are repressed by daily living and its aspirations.

If we take the terms as defined above, we find Thoreau alluding to his life on the pond and the rewards he felt by so doing. He continues, "Many are the travelers I have spoken concerning them, describing their tracks and what calls they answer to." From this we can infer that he has talked to many people about his experience, and found a few who have had similiar experiences. They, like Thoreau, had reveled in their discovery but like him had felt the necessity to move on. The passage that begins, "I left the woods for as good a reason as I went there" indicates that he felt himself becoming as mired in his pursuits on the pond as the people bent on materialistic goals. If he were again to find the turtle-dove, he would have to renew his search. For the peace of the "good life" is as fleeting as a dove, and may come to light in one place for a time, but soon moves on. Therefore, it was left to him to review his search, and grow to meet it where it would next light.

This exploration would seem to be more consonant with Thoreau's philosophy upon emergence from the pond, than the ideas expressed in the footnote by Emerson which seem too pat and materialistic.



The  
**GOLDEN MEAN**





## THE GOLDEN MEAN

by  
Ron Potter

### ORIGINS

It is rumored that the term developed in the days of King Midas. A certain art instructor of the time had a mean student in one of his design sections, and being a friend of the king sought and received "a touch" for the unsuspecting student.

This story was passed down through the ages in the oral manner, and was part of Homer's early repertory. Thus, in confused fashion to be sure, it was known to the early Greek's. They unfortunately were further misled by the then current notion that the goddess Athena indulged in dalliance with 34 lovers on the 21st day of each month. She being their Goddess of Gold, Love, and several other things, when it came time to build for her a great temple, the ration, 34:21, was chosen as a basis for the design, if scholars are to be believed.

Not being Christians<sup>2</sup>, the Greeks could not let well enough alone. In particular, Euclid, and several others of the mathematical crowd, attempted an analysis of this and other ratios. It only remained for others to speculate that rectangles based on the ratio must be the most pleasing.

### GOLDEN MEAN, DEFINED

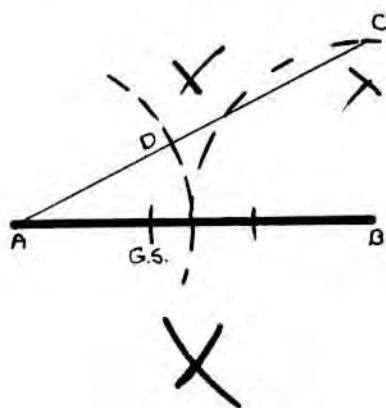
As a result of the Greek speculation, the Golden Mean came to be very strictly defined:

Golden Section (Golden Mean) is the name given to an irrational proportion known at least since Euclid, which has often been thought to possess some aesthetic virtue in itself, some hidden harmonic proportion in tune with the universe.<sup>3</sup> It is defined strictly as a line which is divided in such a way that the smaller part is to the larger as the larger is to the whole (AB cut at C, so that  $CB:AC = AC:AB$ ). In practice it works out at about 8:13<sup>4</sup> and may easily be discovered in most works of art.<sup>5</sup>

For those that dig such things, it should be pointed out that the ratio is actually established by geometry, as shown in the following figures.

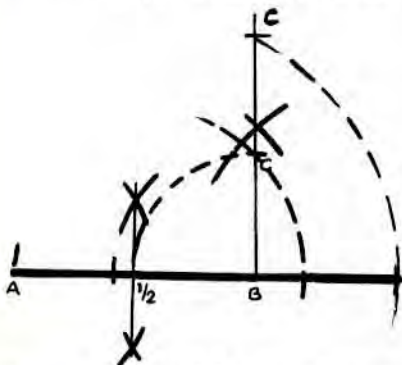


Fig. 1. Method of dividing a line AB at its Golden Section point.



1. Draw line AB.<sup>6</sup>
2. Bisect AB into 2 equal parts.
3. Erect perpendicular at B =  $\frac{1}{2}AB$ .
4. Set compass at A and swing arc through AB and AC with radius =  $\frac{1}{2}AB$ , creates D on AC.
5. With compass set radius = DC. This distance from A or B gives the G.S. pt.

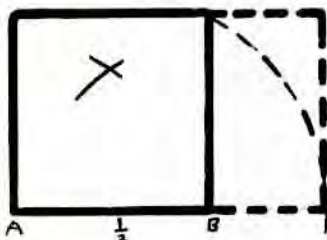
Fig. 2 You have a line and want to add an extension following the Golden Mean.



Call line AB.

1. Divide AB in half.
2. Erect perpendicular at B, set BC = AB.
3. Set compass at  $\frac{1}{2}AB$  and draw arc through C and an intersection pt. with the extension of AB, giving the answer.

Fig. 3 To build a Parthenon you need a Golden Mean Rectangle. Start with a square.<sup>7</sup>



We'll do this one somewhat intuitively.

1. Extend bottom of square as in Fig. 2.
2. If you are not too dumb finish rectangle.<sup>8</sup>



The Greeks used the G.S. rectangle as the jumping off point for the root 5 rectangle (they needed it to finish the Parthenon), but I don't think we'll go into that here. For those who are interested, the text, Vision and Invention, derives it poorly.

#### INFLUENCE OF G.S.

Extensive, from the time of the Stick Trick of Eudoxus to the present, the Golden Mean has fascinated some artists and caused others to exhibit some of the symptoms of St. Vitus dance.

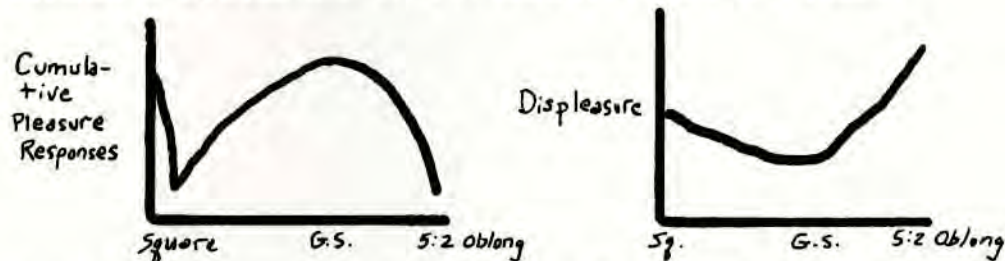
During the Middle Ages Leonardo DaVinci and Luca Pacioli collaborated on a book, Divina Proportione, which among other things, pushes the origin of the G.S. back even further, to God.<sup>10</sup> Following artists who caught the obsession included Raphael, Titian, Dürer, and Palladio. In more modern times Cezanne and Seurat resurrected the concept, and it has come down to us through Cubism, abstractionism, and non-figurative modes.

The frontispiece of this report, Le Corbusier's "Modular Man", represents a modern architects finding of G.S. ratios in the belly button to unpreached palm, and crotch to top of head measurements of man. The fact that a 6 foot man and not a woman or pygmy was used brings up something about artists that makes it difficult.

#### SCIENTIFIC G.S.

After being blind and mentally deranged for some years, the son of a Lutheran pastor, Gustav Theodor Fechner, recovered enough to set the world of aesthetics on its ear by attempting to study the G.S. and other parameters of art scientifically.<sup>11</sup> A very famous experiment involved constructing 10 rectangles ranging from square to a 5:2 oblong, each with an area of 64 cm. sq. German intellectuals (art training was not required) were asked to choose the one that was most pleasing and most displeasing. The G.S. rectangle won, as graphed below.<sup>12</sup>

Fig. 4 German pleasure in rectangles, and a square.  
German displeasure in rectangles, and a square.



Fechner himself was not totally satisfied with the results, and himself pointed out most of the arguments that critics were able to direct against the experiment. He noted that many classical



artists preferred the circle; Winckelmann, the ellipse; Hogarth, the serpentine line and pyramid; and some Germans the square, because it was easy to understand.<sup>13</sup>

#### OTHER CULTURES

Many Oriental artists have preferred the long oblong format for paintings. This format was found most displeasing to most Germans.

#### CONCLUSION

Different strokes for different folks.



## FOOTNOTES

<sup>1</sup>Le Corbusier's "Modular Man"

<sup>2</sup>Christianity was invented sometime after 1 A.D.

<sup>3</sup>There is evidence that the Greeks and some early Christians ate a mushroom with effects like LSD.

<sup>4</sup>Athena was closer at 34:21. Notice symbolism of 34:21:34.

<sup>5</sup>Peter and Linda Murray, A Dictionary of Art and Artists (Middlesex, 1968), p. 174.

<sup>6</sup>If you already have a line this step may be deleted.

<sup>7</sup>Erection of squares is outside the scope of this paper.

<sup>8</sup>Keep corners square.

<sup>9</sup>Calvin Harlan, Vision and Invention (New Jersey: 1970), p. 23ff. Most facts from this source.

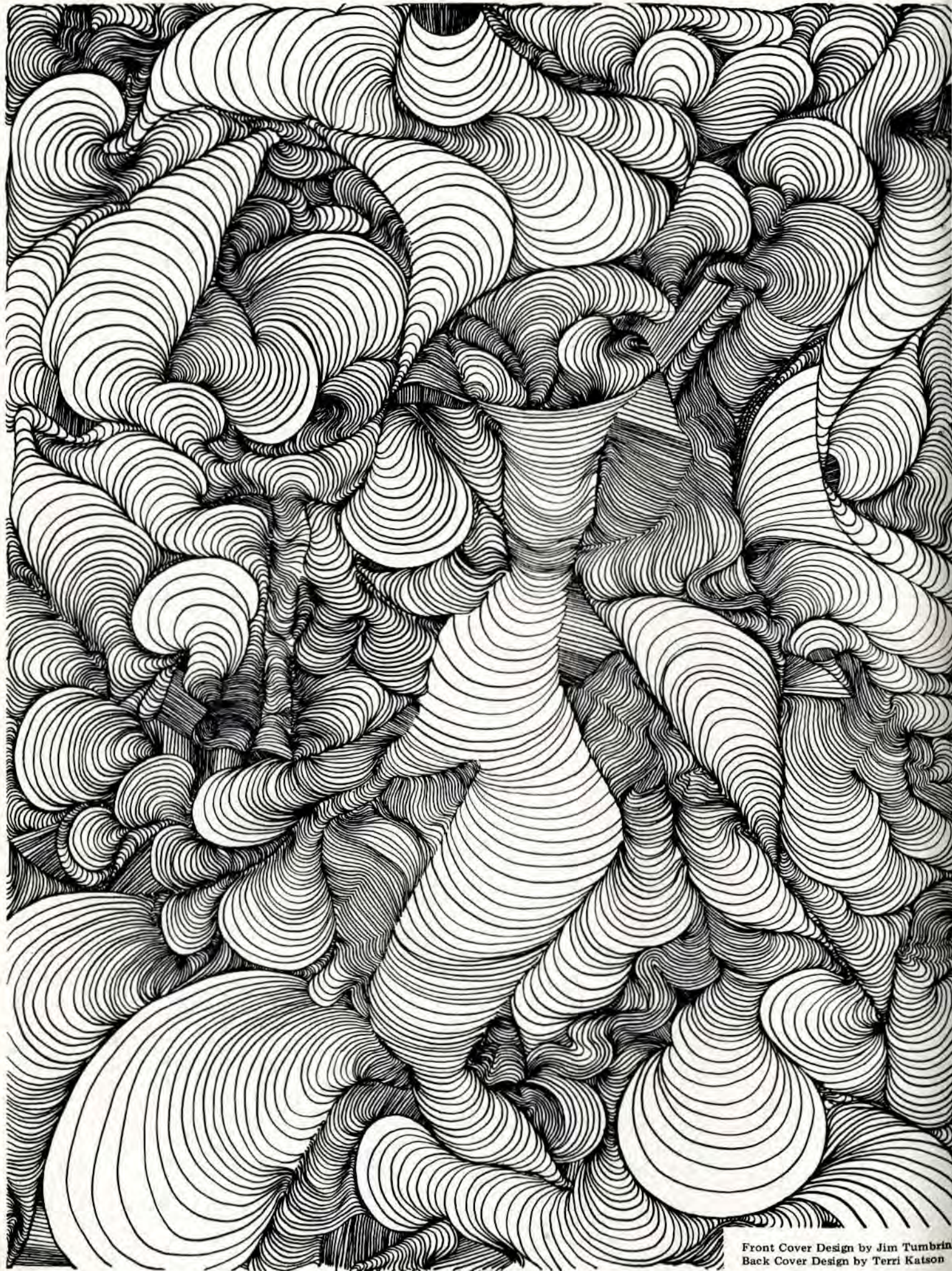
<sup>10</sup>Recent evidence indicates God is utterly indifferent to the G.S.

<sup>11</sup>Peyton E. Richter, ed., Perspectives in Aesthetics (NY: 67), p. 287.

<sup>12</sup>K. E. Gilbert & H. Kuhn, A History of Esthetics (Westport: 72) p. 524ff.

<sup>13</sup>H. M. Kallen, Art & Freedom (New York: 1969), VII, p. 625ff.





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